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ABSTRACT

This report describes and evaluates efforts to enhance school districts' capacity to implement and institutionalize the monitoring and management system for an instructional leadership program called Achievement Directed Leadership (ADL). Chapter one introduces the report's methodology, limitations, and structure. Chapter two first states the purpose of ADL--to help educators use research findings to improve student achievement; then it identifies crucial variables in achievement and outlines a process for influencing these variables. Finally, the chapter describes five strategies used to build district capacity: allowing districts substantial flexibility in implementation; planning, and orienting and training personnel, from the top down; using special activities to introduce innovations and build each district's organizational skills; providing onsite technical assistance; and directing activities toward long-term goals. Chapter three discusses the leadership plan for ADL, activities designed to sustain its implementation, and support materials. The next two chapters analyze the capacity-building process in three school districts. Chapter four discusses orientation, planning, and training; chapter five discusses implementation, evaluation, and institutionalization. Conclusions regarding each of the five strategies and conditions affecting implementation complete the report. Appendixes present a summary of data collection methods used, tables showing implementation patterns, and an interpretation on achievement gains. (MCG)

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CAPACITY BUILDING FOR A SCHOOL IMPROVEMENT PROGRAM, ACHIEVEMENT DIRECTED LEADERSHIP

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CHAPTER ONE

INTRODUCTION

For the past seven years, the Basic Skills Component (BSC) of Research for Better Schools, Inc. (RBS) has been developing and testing a research-based monitoring and management system to guide educators in the improvement of elementary school instruction and student achievement in the basic skills. This is a special report on the component's efforts to enhance the capability of three districts to install the system and sustain its effective use. Specifically, this report describes and evaluates strategies BSC and the districts employed from April 1981 to June 1984 to foster implementation and institutionalization of the system.

This monitoring and management system, originally designed for classroom use, has come to be the central feature of a program of districtwide instructional leadership called Achievement Directed Leadership (ADL). The program was field tested in three districts in 1981-82.[1] Since then, the program has come to include strategies which experience (documented in this report) has shown to be effective in promoting implementation and institutionalization.

This chapter describes the data sources and data analysis used in preparing the report, the report limitations, and the report structure.

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[1]For information on the development of the system see Graeber, A.O. & Helms, D.C. (1983). Documentation Report: Phase I: The development of Achievement Directed Leadership. Philadelphia: Research for Better Schools, Inc. For information on the field test see Biester, T., Kruse, J., Beyer, F., & Heller, B. (1983). Documentation Report: Phase II: A field test of Achievement Directed Leadership. Philadelphia: Research for Better Schools, Inc.

Data Sources and Data Analysis

The experiences discussed in this report were selected primarily from BSC's work with three school districts (one each in New Jersey, Pennsylvania, and Delaware) that cooperated in testing the monitoring and management system in the 1981-82 school year. This report covers implementation in participating elementary schools in those three districts in the field test year, 1981-82, and continuance of the program in the following two school years, 1982-83 and 1983-84.

The report is based on three types of data: (1) data on the component's program development and technical assistance to districts, including hypotheses and reflections on the success of program strategies; (2) data on district staff activities in preparing for and implementing the program and their reflections on those activities; and (3) data on student achievement in the basic skills. With the exception of student achievement scores, the data presented here, whether supplied by BSC staff or cooperating educators, are mainly observation or self-report data.

Information on BSC's development of the program and provision of technical assistance to the districts was drawn from component documents such as staff reports of field work, quarterly reports to the National Institute of Education (NIE), special development and evaluation reports prepared for NIE, and proposals submitted to the districts. Assessments of the success of capacity building and institutionalization strategies were solicited from BSC staff during meetings and by memo, verified against data on district implementation activities and district staff perceptions, and then refined. A similar group "brainstorming" process was used to

identify the topics and "learnings" presented in the summary chapter. After these topics were agreed upon, individual field staff were asked to select confirming vignettes from their field reports or identify relevant data from the summary reports of interviews and questionnaires.

BSC staff used multiple data sources to document implementation activities in the district and the district staff's perceptions of change. The major data sources are briefly described below.

- BSC Contact Reports: Reports were written by BSC staff to document all field work. The reports describe objectives, activities, outcomes, and future plans for each contact.

- District Documents: Proposals, plans, correspondence, reports, and memos were collected from the districts and reviewed.

- Field Interviews with Superintendents, District Office Staff, Principals, and Teachers: Interviews tailored to each group were administered. These were generally designed to elicit information about roles and activities during the year (or previous year), perceived success and problems, and overall commitment and reactions to the approach. (See Appendix A.)

- Principal and Teacher Questionnaires: Forms (primarily close-ended) directed to each group were designed to obtain information on the extent and quality of implementation and reactions to the approach. These were administered once towards the end of the field test year. (See Appendix A.)

In order to enhance the reliability of the data, attempts were made to cross-check data wherever possible, i.e., the superintendent, central office staff, principals, and teachers in each district were questioned about the same topics in order to gain insight into their various perspectives. Consistency of findings among the different sources adds credibility to the information reported.

Much of the data on district implementation was qualitative and/or self-report, and the analyses were primarily descriptive. Where

appropriate, BSC staff quantified interview and questionnaire data in terms of frequencies, means, and percentages. The primary level for reporting implementation data for this report was the district. Apparent relationships between implementation data and achievement data were noted, but were not subjected to any statistical analyses.

Each district's existing testing program provided the student achievement data for the report. In the three districts, tests were administered in the spring of each year to all students. Throughout Delaware, the California Achievement Test (CAT) was used in the spring of 1981, 1982, and 1983; in the spring of 1984, the state switched to the Comprehensive Test of Basic Skills (CTBS). The New Jersey school district used the CAT for all four years. In addition, scores from the statewide basic skills competency test were available for specific grades. In the Pennsylvania district, the Science Research Associates (SRA) achievement test was administered in the spring of all four years. In all cases students took the level of the test designated by the test publisher as appropriate for their grade.

Normal curve equivalent scores (NCEs) were used as the basis for analysis of student achievement data. Scores were collected for each elementary grade in each district (aggregated across schools) in 1981, 1982, 1983, and 1984.

Limitations of the Report

ADL is a large scale and fairly complex educational innovation. Although much can be gained by tracking such an innovation over a three-

year period, there were problems and constraints associated with this documentation effort. The two major constraints were that:

- the history and extent of implementation in the three districts varied, making it difficult to collect comparable data from year to year or even in the same year across districts
- some collection and analysis of data that ordinarily would have been desirable (e.g., data on the status of individual classroom processes related to student achievement gains) were impossible given the component's resources and continuing need to train educators, develop materials, and document activities. Economic constraints precluded the collection of hard, objective data, and resulted in much of the data being of a self-report nature.

This report is not intended to be definitive but rather to share some significant BSC experiences and reflections on capacity building. In this sense, it is the record of participant observers and, perhaps, subject to the same unconscious bias that motivates enthusiastic participants of any project. However, this does not mean that the data collection was carried out haphazardly or that reflection on the experience did not provide indicators of success or failure of certain BSC strategies. Overall, the report is intended to provide a record of experiences and insights that others who are working on research utilization projects may find helpful.

Structure of the Report

The rest of this report is divided into five chapters.

Chapter 2 describes the capacity BSC was trying to build and the major strategies BSC pursued in building that capacity.

Chapter 3 describes the instructional leadership plan for ADL and other processes and materials specifically developed to support implementation in the field test districts.

Chapter 4 describes the intended and actual orienting, planning, and training experiences in three districts. Also discussed are the major changes BSC made in its orientation, training, and planning procedures during the three years.

Chapter 5 consists of three major sections, each of which is devoted to a district. Each section includes:

- a brief description of the district and an overview of its work with BSC
- BSC and district strategies used to foster implementation along with an assessment of the success of those strategies
- BSC and district strategies used for formative evaluation of the implementation
- the strategies BSC pursued in encouraging the district to institutionalize ADL, the strategies or conditions within districts that supported or inhibited institutionalization, and an assessment of the extent of institutionalization.

Chapter 6 summarizes BSC's observations on strategies for capacity building and institutionalization.

CHAPTER TWO

CAPACITY BUILDING--GOAL AND MAJOR STRATEGIES

The two major sections of this chapter discuss (1) the capacity BSC was attempting to build in each of the districts, and (2) major strategies which guided the component in its capacity building efforts.

The Goal of the Capacity Building Activities

The component set out to increase educators' ability to use research findings to improve instruction and, ultimately, student basic skills achievement. BSC viewed this as a process of helping school districts to understand, install, implement, and sustain practices that research suggests are conducive to effective instruction. The four major BSC tasks in this process were identified as: (1) identify from the research a manageable number of variables that educators can influence and that are critical to student achievement; (2) develop methods and materials to help educators monitor and manage those variables; (3) train educators in the use of those methods and materials; and (4) support educators in their implementation of the monitoring and management processes.

Graeber and Helms (1983) describe the process BSC followed in selecting a small set of critical variables and in designing the associated methods and materials for tracking and managing them. The variables that were identified and the method of monitoring and managing those variables are briefly discussed below. Also described is BSC's intent that districts use the variables management system as a method of self-renewal and reform.

The second half of this chapter presents the major strategies BSC used in designing training and technical support for the installation and maintenance of the monitoring and management system. (The actual training and support BSC provided to the districts are described in some detail in chapters 4 and 5, respectively.)

Variables Critical to Student Achievement

The component's synthesis of research findings on classroom effectiveness indicated that students who have, or acquire, knowledge that helps them to successfully learn new content, and who spend an adequate amount of time covering, mastering, and reviewing content on which they will be tested, are much more likely, on year-end achievement tests, to perform better than students who do not act this way.

Consequently, it was inferred that all educators should give special attention to the following student behaviors, or variables:

- prior learning -- the knowledge that students have or acquire which will help their learning of new subject matter
- student engaged time -- the amount of time students actually spend on assigned learning tasks
- coverage of criterion content -- students' opportunity to learn the content on which they will be tested
- academic performance -- students' success with daily learning tasks, their mastery of content units, and their review of newly learned subject matter.

Of course, exclusive attention to one of the behaviors without due attention to the others will not be fully beneficial. Furthermore, many other variables influence these four behaviors. The following section describes how teachers, principals, and central office staff, working together, can monitor and manage the four critical student behaviors and also take into account other variables.

The Management Process

The component developed a four-step improvement cycle, or variables management process (see Figure 1), to help educators collect data on each of the critical variables listed above, and identify and exploit opportunities for improvement. For example, in checking that student engaged time is at an appropriate level, a teacher, with help from the principal or another teacher, first collects information on how much time students in his or her classroom are actually spending on assigned learning tasks. In the second step, this information is compared with similar information from research studies. Third, if the comparison indicates that improvements are needed, the teacher chooses a strategy to increase engaged time. In selecting an appropriate strategy educators can also use their knowledge of the many other behaviors that influence the target behavior, in this case, student engaged time. In the fourth step, the teacher implements and monitors the classroom change. If, after a reasonable time period, the change strategy does not show a positive impact on student engaged time, the teacher can repeat steps three and four and either adjust the original strategy or, if necessary, select a different one.

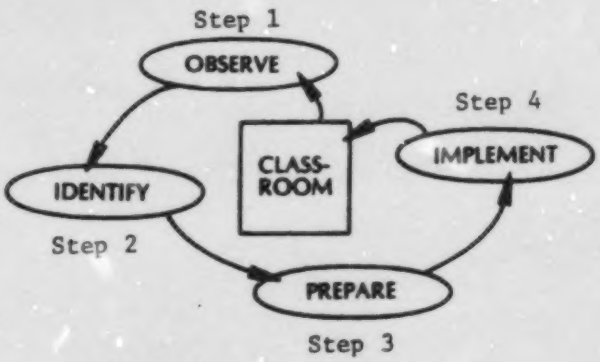

Figure 1. Four-step improvement cycle.

Capacity for Renewal

The rather simple improvement cycle or problem-solving strategy portrayed in Figure 1 provides a way of monitoring and managing the critical student variables. The component hoped that educators would also use the improvement cycle to monitor and manage student behaviors targeted by emerging research findings, as well as the critical leadership functions of teachers, principals, and central office staff. In other words, the problem-solving strategy was intended to enhance the district's general capability to identify opportunities for instructional improvement, match improvement prescriptions to the opportunities, and monitor and evaluate the effects of the modifications. Thus, the capacity-building effort was directed not only toward implementation of a specific innovation but also toward learning a method of self renewal and reform. In this sense, the project and NIE's Research and Development Utilization (RDU) project (Louis, Rosenblum, & Molitor, 1981) shared the goal of incorporating a problem-solving process into school and district decision-making activities.

Major Strategies in Capacity Building

When BSC began its work in 1978, it recognized that planned educational change had not had a history of broad or consistent success. The component hypothesized that by using the findings of research on educational change and inservice education to shape its work, BSC might increase the chances of success of that work. Therefore, research findings guided the development of materials and processes, the component's work with district personnel, and the implementation recommendations and guidelines which BSC provided to districts. The five major strategies BSC pursued in its capacity-building efforts were:

- limit the number of highly specified implementation processes and materials in which fidelity of the innovation is invested
- orient, plan, and train following a top-down sequence
- use innovation-specific implementation events to help districts develop the general planning and organizational skills needed to accomplish implementation of the innovation
- provide on-site technical assistance following training
- anticipate the probable long-term impact of early design and implementation activities.

The first overall strategy was to limit the number of highly specified implementation processes and materials, thereby giving districts flexibility in how to accomplish a number of the tasks. BSC hoped that this strategy would encourage the input from users which many researchers (e.g., Fullan & Pomfret, 1977) claimed was so important for a sense of ownership and for successful implementation.

BSC also adopted, early on, a second strategy: orienting, planning, and training in a top-down sequence, i.e., training and decision-making were to occur first with district leaders, then central office staff, then principals, and then teachers. Despite the notion prevalent in the late 1970s (which exists to some extent today) that effective improvements spring up from grass roots (classroom or building) participation, BSC chose its top-down strategy as a means of garnering needed support and leadership from the school system bureaucracy. The need for such support had been suggested by Brickell (1961), Berman and McLaughlin (1977), Lipham (1977), and Pincus and Williams (1979). The component also selected this model as an economical means of disseminating the approach within the district. That is, the district would have, at the central office level, its own capacity to train principals and teachers within the district.

BSC pursued a third major strategy derived from literature on the educational environment's influence on the success of an innovation. Pincus and Williams (1979) listed five environmental factors (leadership, zone of tolerance, planning and delivery system, derivation of the benefits, and stability) that innovators may incorrectly assume to be in place and supporting their intended changes. BSC acknowledged the importance of these factors and also realized that school districts with the greatest need to improve instruction and achievement are frequently among the least able to provide the support needed to implement innovations. Some researchers (e.g., Rosenblum & Louis, 1981) have argued that districts will not change successfully unless their organizational abilities have reached some critical level. BSC resolved to use actual installation and implementation events to assist districts in developing needed organizational behaviors, rather than wait for them to develop their organizational abilities before beginning implementation. For example, component field agents modeled effective planning behaviors by sharing and following a checklist they devised for principals to use in planning for teacher training.

Given favorable circumstances, even with respect to all the environmental factors, the possibility still remains that the innovation will fail if other conditions, such as intensive inservice for users (Cole, 1971; Hamin_son, 1973), resource support for change (Berman & Pauly, 1975; Downey & Associates, 1975), and feedback mechanisms (Charters & Pellegrin, 1973; Gross, Giacquinta, & Bernstein, 1971) are not met. BSC foresaw that its capacity-building efforts would require a fourth strategy: provision of on-site technical assistance to help assure that those conditions were met. BSC planned that the technical assistance would follow the steps of good

inservice listed by Joyce and Showers (1980)--presentation, modeling, practice, feedback, and coaching.

In the 1970s, the emerging research on educational change clearly indicated that program features and implementation decisions influenced the extent to which programs would be sustained. As its fifth strategy, BSC determined that, whenever possible, all program design and implementation tasks would be carried out with a view toward their long-term impact on program implementation and institutionalization. For example, Berman and McLaughlin (1975) noted that "opportunistic" projects begun in response to available funds rarely resulted in lasting or effective change. BSC tried to minimize the likelihood that opportunistic districts would implement solely because of available funding. Although training was provided free of charge, BSC did not provide funds to districts for the teacher inservice time or for defraying other implementation costs.

CHAPTER THREE

PROGRAM DEVELOPMENT TO SUPPORT IMPLEMENTATION

As the dates for the initial training of field test district staff approached, BSC staff and district leadership grew increasingly concerned about how to foster, sustain, and monitor use of the variables management process. These concerns prompted BSC to include in the training more information on implementation roles and activities and to provide materials and specify procedures to support these roles and activities. BSC specified the activities which central office staff, principals, and teachers would perform as they used the variables management process. BSC also specified the activities central office staff and principals need to engage in to support principals' and teachers' use of the improvement cycle. The roles and activities described became known as a "leadership plan." During the summer of 1981 the component selected the name Achievement Directed Leadership (ADL) for both the leadership plan and the training designed for its installation.

This chapter describes:

- the overall leadership plan for ADL
- four major program elements designed to sustain implementation of the leadership plan, along with the rationale for their inclusion
- the materials developed to support these implementation activities.

The Leadership Plan

The component developed the leadership plan to clarify ways central office and school staff could coordinate their efforts to establish and

maintain instructionally effective classrooms. This plan was derived from research on effective classrooms, schools, and districts. The plan was also designed to be compatible with the roles in the traditional school district hierarchy (superintendents, principals, and teachers). The plan prescribes several role-related functions for educators at each level of the school district, and describes channels of communication between levels. Following the leadership scheme, educators at each level perform their functions using the improvement cycle and focusing on the goal of improving, or maintaining, levels of the critical classroom variables. The plan also provides methods which school and district level administrators can use to monitor implementation of the plan. The following three sections discuss how the leadership plan operates at the classroom, school, and district levels.

Classroom

At the classroom level, the leadership plan (Figure 2) is predicated on two related findings: (1) students' classroom behaviors and year-end achievement are influenced by behaviors they bring to the classroom at the beginning of the year (Bloom, 1976; Cooley & Leinhardt, 1980; Fisher et al., 1978); and (2) teachers can, nevertheless, alter conditions of teaching and learning and thus influence student classroom behavior and year-end achievement (Bloom, 1980; Emmer & Evertson, 1981; Rosenshine, 1979). Accordingly, the leadership plan calls for teachers to:

- consider student entering behaviors and use the improvement cycle to attend to the critical classroom variables as they plan classroom instruction and management

- manage the classroom
- instruct students.

Teaching in the classroom is a complex process that occurs in the context of larger and even more complex settings, the school and district. These more complex settings influence classroom conditions and processes. The leadership plan calls for teachers to regularly conference and cooperate with their principal to plan and implement improvements.

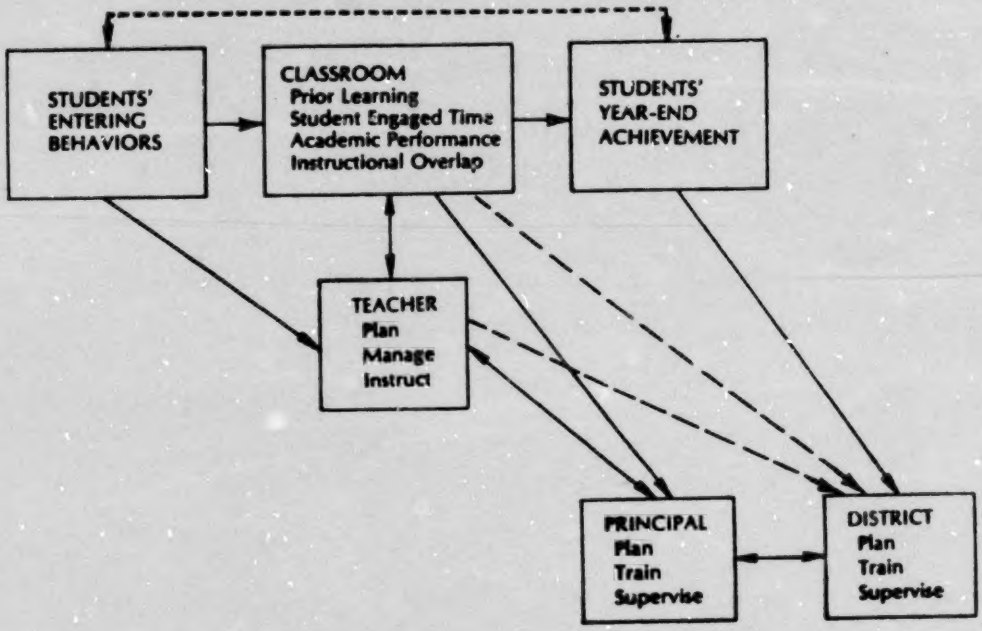

Figure 2. The leadership plan.

School

Research has not yet made clear the relationship between specific principal leadership tasks and classroom instruction (Koehler, 1981). Nevertheless, some research (Wellisch, MacQueen, Carriere, & Duck, 1978), and the experience of BSC and its project partner, suggests that principal support can help maintain the classroom leadership described in the

previous section. Accordingly, the leadership plan for the school level calls for principals to:

- plan program implementation for the school as a whole as well as plan with individual teachers for classroom improvement
- train teachers in role-related functions
- provide teachers with participatory supervision in their use of the improvement cycle.

Figure 2 shows a two-way flow of information between the principal and teacher. The principal is continually informed of classroom conditions through regular classroom visits and the review of teachers' instructional plans. The principal subsequently uses this information in regular conferences with teachers to help them work through the improvement cycle. And, the leadership plan calls for principals to regularly share this information with district level personnel and to plan improvements with them.

District

Research has suggested some characteristics of effective districts and critical elements that contribute to a district's success in implementing planned change (e.g., Berman & McLaughlin, 1975; Pincus & Williams, 1979). However, research does not tell us exactly how these factors affect instructional leadership in schools and classrooms. BSC's experience indicates that several kinds of central office support can help establish and sustain the instructional leadership described at the school and classroom levels.

The functions of central office staff are similar to those of principals, and are equally concerned with the classroom dimensions which affect student achievement. These functions, however, are primarily directed to

supporting principals who are expected, in turn, to support teachers. The central office functions are to:

- plan with principals
- train principals to perform their role-related functions
- provide participatory supervision to principals.

As shown in Figure 2, a two-way flow of information should exist between central office staff and principals. Although much of the communication will be informal, the principal and district leadership should also have formal conferences to review the documented outcomes of the principal's conferences with teachers. During these conferences, explicit attention is given to the status of classrooms (with respect to the critical student variables) and to the teachers' plans for and success in improving instruction. The instructional leadership plan calls for the district leadership to be continually alert to opportunities to assist principals with their own leadership responsibilities and functions.

The plan suggests that student year-end achievement be vitally important to the district. District/principal conferences provide an opportunity for district leaders to evaluate the classroom information compiled by each principal in terms of past student achievement and district goals for student achievement in the current year.

Although the district relies primarily on the principals for information concerning schools and classrooms, district leadership may also acquire information directly through personal visits and reports. These visits to classrooms are necessarily much less frequent than visits by principals.

Program Elements Designed to Sustain Implementation

BSC developed the leadership plan described above to provide educators at the school and district level with a vision of what they would be doing if they were to implement, support, and sustain use of the improvement cycle. However, both BSC staff and district leaders felt a need to provide teachers, principals, and central office personnel with specific ways of supporting and sustaining use of the variables management procedures.

BSC had always intended that educators using the improvement cycle participate in activities designed to share data across levels and support the implementation. Relatively formal conferences between building principals and individual classroom teachers are one example of such an activity. Prior to the spring of 1981, however, little attention was given to specifying these activities or developing materials or training for them. There were several reasons for this. The first was BSC's overall strategy which suggested that such supporting processes should remain flexible across districts and be designed in coordination with districts so that each district would build its ownership of the improvement effort. Furthermore, during the early years of program development, BSC staff time was consumed by reviewing research and designing training directly related to use of the improvement cycle at the classroom level.

However, by 1981, BSC found that most district and building personnel had little time to design methods and materials. BSC also discovered, as did NIE's RDU project (Louis et al., 1981), that local development of materials could hinder (by claiming scarce inservice time and attention) rather than facilitate improvement efforts. Thus, as training was developed

over the three year period, it came to include not only use of the improvement cycle at the classroom level, but also specific implementation activities designed to help educators sustain and support their use of the improvement cycle. The training also began to give increased attention to provisions for leadership at the building and district levels. The four implementation activities that BSC and field test district personnel found to be crucial to sustaining implementation were: principal seminars, principal supervisory conferences with teachers on classroom data, superintendent conferences with principals, and differentiated inservice. The following discussion describes these four elements and clarifies how each was intended to help sustain the implementation. BSC's experience with district implementation of these elements is discussed in chapter 5.

Principal Seminars

Principal seminars were conceived as monthly meetings led by the district leadership to coordinate implementation activities, improve principals' leadership skills, and keep principals focused on the goal of instructional improvement. BSC encouraged the districts to incorporate seminars into their usual district/principal meetings, thus communicating the expectation that ADL was to be the routine way of operating rather than a special project. BSC hypothesized that if district leadership regularly showed that instructional improvement was one of their priorities, principals would sense its importance and be more likely to establish and maintain instructional improvement as a goal for their school. In seminars, the district office staff could address and help principals solve problems, whether these were real concerns or only barriers raised to stave off

implementation. For example, a common implementation concern of principals was lack of time. They claimed that their present activities consumed all their time and they could not conduct the classroom observations or hold teacher conferences. District leadership could explore such concerns with principals and resolve the problems in seminars. Seminars could also be a source of support to principals who, in the course of implementation, often were applying new skills and behaviors.

Principal/Teacher Conferences

The leadership plan suggests that the principal help teachers use the improvement cycle and grow in their role-related functions. The principal can assist teachers by collecting data (e.g., student engaged time) during classroom observations, by encouraging and monitoring teacher collection of data on other critical student behaviors (e.g., academic performance, coverage of content), and by meeting with teachers to review data on all of the critical variables. In regularly conducted, formal conferences with a teacher, the principal can provide support by recognizing those student behaviors that are at levels conducive to good or improved achievement. Together, the principal and teacher can also plan ways of improving those student behaviors that are not at satisfactory levels. A principal's subsequent modeling of the selected strategies, coaching on the strategies, or provision of related inservice for the teacher are examples of further assistance.

BSC hypothesized that teachers would be prompted to collect data if a number of formal principal/teacher conferences were scheduled throughout the school year. However, BSC's reading of the literature suggested that

principal/teacher conferences were often completed casually (with few or no provisions for specific conference topics or outcomes) and made a negligible contribution to improvement (Blumberg, 1974). Therefore, BSC developed a conference form to provide a basic structure for principal/teacher conferences. The conference form called for recording data on the critical variables (prior learning, student engaged time, content coverage, and academic performance) along with improvement goals and plans for achieving the goals. During training, central office staff and principals practiced using the form. The component suggested that principals have at least three conferences per year with each teacher, and more frequent conferences with teachers who have many opportunities for improvement.

BSC and the cooperating district leadership realized that the role they were proposing for principals might pose problems. The potential difficulty is described by Joyce (1982):

> In most schools there is a tacit understanding between administrators and teachers that their respective domains are not to be encroached on. Informal sanctions are applied to individuals who violate the norms of privacy in the classroom, or attempt to generate systematic change within the institution that affects working conditions. (p.48-49)

Therefore, BSC anticipated that principals would initially resist conducting classroom observations and formal teacher conferences. BSC included superintendent/principal conferences as an implementation activity to override resistance and encourage principals to proceed with the observations and conferences, and to increase the district leadership's awareness of classroom and school conditions.

Superintendent/Principal Conferences

Just as the leadership plan suggests that the role of the principal is to support and facilitate the growth of teachers, it suggests that the role

of district leaders is to support and promote the growth of principals. The district leadership can encourage and monitor principals by meeting with them individually to review the outcomes of their conferences with teachers. BSC developed a form principals can use to list the classroom data on the critical variables, to identify areas for improvement, and to record agreed upon school building goals and plans. These conferences provide the district leadership with an important means of assessing the principal's skills in planning, training, and supervising teachers. Also, the district can use the data on critical classroom conditions and on teachers' opportunities for growth to identify appropriate inservice for teachers.

Since the superintendent frequently is the only district office person with line authority over principals, BSC hypothesized that it was important that the supertintendent conduct these conferences. Other central office staff not only lack authority over principals, but also often have a tacit understanding with building principals about the sanctity of their respective domains.

Differentiated Inservice

One outcome of the conferences and seminars is the identification of improvement opportunities for teachers and principals. When districts provide differentiated attention to diagnosed opportunities for improvement, they demonstrate use of the variables management process for district improvement or reform. Differentiated inservice is not a pre-designed element of ADL. However, when such inservice occurs, it shows the district is attending to one of ADL's overall goals--increased capacity for renewal.

BSC developed materials for central office staff and principal training that illustrate and suggest how the data collected in conferences and the issues raised in seminars can lead to the development of inservice. When many principals or teachers share the same diagnosed opportunity for improvement within or across schools, the district or principal is encouraged to deliver group inservice. When opportunities are unique to an individual, the district can arrange for the principal's or teacher's participation in a specific offering at a local university or intermediate service agency.

Support Materials for Implementation Activities

In the spring of 1981, BSC staff began to develop materials and processes related to seminars, conferences, and differentiated inservice. For the most part, these materials were incorporated into handbooks--one for central office staff, one for principals, and one for teachers. The handbooks include information on (1) the leadership plan; (2) roles specific to the level (e.g., central office staff, principal); (3) principal seminars; (4) superintendent/principal and principal/teacher conferences and their outcomes; and (5) planning for succeeding years of implementation. These materials were explained, and used, during training sessions and seminars. The handbooks, which BSC now recommends be distributed and reviewed either during the orientation session or the first training session, also include the training materials on use of the management process for the critical student behaviors.

CHAPTER FOUR

ORIENTING, PLANNING, AND TRAINING

The earlier chapters of this report described the capacity BSC was trying to build, the major strategies it planned to pursue in building the capacity, and the materials and processes developed to assist implementation. This chapter describes the component's experience with installation of the innovation in districts.

The educational change literature includes a variety of multiple stage models of the innovation process. For the purpose of this report, BSC has chosen the following six stages: orientation, planning, training, implementation, evaluation, and institutionalization. These stages are not necessarily sequential or discrete, but are treated separately in this report in order to organize the discussion of intents, strategies, and experiences. This chapter describes BSC experiences with the first three steps: orientation, planning, and training. Chapter 5 describes experiences with the last three stages.

Orientation

Prospective users need to be aware of the nature and purpose of an innovation, but awareness is not sufficient to make a decision about adoption. The prospective users need to know the challenges they will face--particularly where the innovation is at odds with existing norms or where it requires new accountabilities. That is, they need to orient their existing system to the innovation to identify points of compatibility and stress.

BSC's top-down model of installation and implementation includes an orientation of central office personnel to provide the superintendent and others with information needed to help them make an informed decision regarding participation. The orientation for central office staff includes information about the amount of inservice time required, and the implementation roles of central office staff, principals, and teachers.

Orientation was designed to proceed in a top-down fashion so that either the necessary approvals and commitments from upper levels were obtained or the process came to an early halt. If orientation continued without such commitment, or began with lower levels, there was a possibility that time and resouces would be poorly invested. BSC intended that central office staff would orient principals, and principals, in turn, would orient teachers. Orientation sessions for principals and teachers were designed to provide information and address questions and concerns.

The following discussion of experiences, strategies, and outcomes of orientation is organized as follows: (1) BSC orientation of the superintendent and central office staff; (2) orientation of principals; and (3) orientation of teachers. Component experiences with orientation in the field test districts was limited. Therefore, some experiences outside the field test districts that contributed significantly to the component's orientation strategies are included in the discussion.

Orientation of the Superintendent

The strategy of first orienting the superintendent and central office staff and seeking their commitment to implementation proved necessary and successful in all three field test districts (as well as in other districts).

- Traditionally the New Jersey principals spent the last two weeks of August preparing for the opening of school. In August 1981, although principals were still negotiating their contract, they agreed to spend one of these weeks attending ADL training. Without the superintendent's committment and insistance on ADL as a priority, it is likely the principals would either have made the use of time in August a negotiation item or would not have attended.

- In a New Jersey dissemination district, the central office team's attendance and participation in training were excellent until the superintendent was appointed to a new position. At that point, the attendance of other central office team members' at training became irregular and implementation was not achieved.

Two factors seemed to influence superintendents' initial commitment to participation and ability to provide resources needed for implementation. The first factor, the degree of public pressure to improve instruction and student achievement, is illustrated by contrasting the Pennsylvania and New Jersey districts. The standardized achievement scores in the two districts were not radically different. (See Tables 1 and 2 in chapter 5.) However, in the New Jersey district there was greater public press for increasing achievement. Throughout New Jersey, students in grades 3 and 6 were given a state mandated minimum basic skills test; each district's rank on this test was published in local newspapers and the scores were the basis of the state's well publicized district classification scheme (approved, approved with conditions, or disapproved). In Pennsylvania, participation in the state testing program was voluntary, with students in grades 5, 8, and 11 tested once every three years. The local press paid comparatively less attention to test results. Obtaining and holding commitment in the Pennsylvania district was more difficult than in the New Jersey district. To hold commitment in the Pennsylvania district, BSC staff found it helpful to emphasize that participation supported other district priorities, such

as inservice for principals as instructional leaders. BSC also encouraged the district to set higher achievement goals, especially for schools where achievement was below the district average.

A second factor, the extent to which the district was loosely coupled or had a history of loose coupling, influenced the superintendent's ability to mobilize district participation. District leaders varied in their capacity to influence changes at the school level.

- In 1981 the Delaware district was a small, relatively tightly coupled district. In this district, BSC's top-down orientation, beginning with the superintendent, was a successful strategy.

- In contrast, principals in the Pennsylvania district had experienced a number of years of relative autonomy from the central office. Districtwide implementation at the elementary level took two years to achieve. Also, the middle school principals in the district said they favored the program, but they were not persuaded by the superintendent's strong encouragement to participate in a district-led effort. The middle school principals wanted to decide for themselves when and how to go about school improvement.

Interestingly, the New Jersey district principals also enjoyed considerable autonomy prior to 1981 (under a series of superintendents with short terms), but the superintendent's insistence on full-scale implementation, supported by school board press for improvement, seemed to counter principal resistance. The superintendent's orchestration of public support for increased achievement was a probable key to tightening control. He convinced business and community leaders of the need for their help and enlisted community support with a BSC-supplied description of the program (including a Spanish translation by district staff) in the district's newsletter for parents. Clearly, superintendents who wish to tighten

district couplings face professional risks. However, there are preparatory steps, such as orchestrating private sector support, that can reduce the risks.

Orientation of Principals

BSC's second major intent for orientation was that central office staff orient principals. However, in both the New Jersey and the Pennsylvania districts, the central office staff requested and received from BSC linkers substantial help in planning and conducting the orientation of principals. (The Delaware district principals had been oriented by BSC staff prior to 1981.) Even during the second year (1982-83), the superintendent and central office personnel in the Pennsylvania district requested BSC assistance with the orientation of 12 principals new to the program. However, in all principal orientations, the superintendents gave their verbal support to the improvement effort and, on their own or at BSC's prompting, related the effort to ongoing district initiatives.

- In the fall of 1981, the superintendent presented a "mission statement" to central office staff and principals just prior to their initial week of training. The "mission statement" included goals and objectives for the superintendent, central office staff, principals, and teachers. The statement also reflected school board and state policies. The mission statement never mentioned Achievement Directed Leadership by name, but called for teachers, principals, and central office staff to carry out the instructional leadership activities that were part of the improvement effort.

- One of the Pennsylvania superintendent's goals was to enhance the instructional leadership role of principals. During the orientation for principals, the superintendent recommended the proposed training and implementation as an excellent way of helping principals increase their leadership role.

Generally principals reacted to orientation sessions by agreeing to the soundness and desirability of the effort. They also questioned whether they would have time to conduct classroom observations and teacher conferences.

Orientation of Teachers

The third major intent for orientation, having principals orient teachers, was achieved in almost all schools in the New Jersey and Pennsylvania districts, but not in the Delaware district. BSC provided New Jersey and Pennsylvania principals with an outline and overhead transparencies for the teacher orientation but, due to inservice time constraints, only minimal training in the use of these materials. Several Pennsylvania principals requested central office assistance with teacher orientations. In response to a request from the central office, BSC linkers eventually provided this assistance. In many cases, district office personnel in both New Jersey and Pennsylvania, sensitive to the varied needs and commitment of their principals, assigned a team of two principals, or a principal and a member of the central office staff, joint responsibility for teacher orientation.

BSC linker visits to teacher orientations in New Jersey and Pennsylvania indicated that there was variation in principals' success with the presentations. The variation related to principals' skill as trainers and their commitment to the program.

- In one teacher orientation session observed by a BSC linker, the principal followed the orientation outline verbatim, but did not give the central office staff person any role in the presentation. The principal did not respond to teacher questions and did not call upon teachers who had participated in the development of the effort to share their

experiences. The BSC observer felt that the principal's style contributed to an atmosphere of distrust and confusion among the teachers.

- At a second school, a principal and central office staff person shared the presentation. Although there was some initial fumbling associated with the sharing, the principal remained confident and in constant control. Teachers who had participated in the development project were invited to relate their experiences and add to the presentation. The BSC observer described this session as lively and successful.

In the Delaware district, many teachers were oriented to the program prior to 1981. During the field test, the BSC linker provided a brief teacher orientation early in the school year. District leaders asked the linker to lead the session since it focused on the component's need to document implementation for the field test. Central office staff sat in on the session but took no part in leading it.

Although teacher reactions to orientation varied with the quality of the presentation, many teachers also expressed concerns about the role of classroom observations and student achievement test scores in the teacher evaluation process. Teachers' concerns were frequently alleviated during the course of the implementation when the practices were put into place. Overall, reaction to the orientations was consistent with the report of Gall, Haisley, Baker, and Percy (1982), with administrators reacting more favorably than teachers to a model that links inservice with the assessment of student achievement.

Conclusions

There have been no major changes in BSC's intentions for orientation. However, BSC has altered two strategies related to the top-down turnkeying of orientations and has developed more materials to support orientation sessions.

BSC's experiences support the need for initial commitment from the top. However, in loosely coupled districts, initial commitment may be best achieved by involving a decision-making team, including principals as well as the central office staff, in the initial orientation. If the principals reject the innovation and the superintendent has no intention of mandating implementation, it is probably prudent for the external linker to accept that the district will not participate, rather than continue pressing the superintendent for some implementation.

Some of the orientation-related materials BSC has developed in the past two years are designed to provide superintendents (or district teams) with a means of assessing their district's readiness to begin training and implementation and with a more detailed understanding of implementation requirements. BSC developed a form designed to help districts compare their current goals and practices with improvement effort goals and practices. Central office personnel complete the form during their orientation and use it to decide whether implementation effort goals are compatible with their goals, if they are already implementing significant portions of the improvement effort, or if their district lacks conditions or resources important to the implementation. Completion of the form not only draws the district's attention to the compatibility of improvement effort and district goals, but it also serves to aid initial planning for those districts who decide to continue with implementation. BSC has also developed a "Statement of Understanding" for use in orienting central office staff. The statement lists implementation requirements (such as inservice time) and clarifies

RBS and district roles in planning, training, and implementation. If the district decides to proceed with planning and training, BSC asks that the statement be signed by the district superintendent.

A second change in strategy simply involves providing more time during training sessions for central office staff (and principals) to plan for and practice the orientation of principals (and teachers).

Some of the development that BSC has recently pursued is intended to aid external linkers and central office staff in orienting district administrators. For example, BSC produced a brief videotape about the improvement program and a brochure describing the program and the outcomes attained in the field test districts.

An orientation strategy BSC has considered but never tested is to provide an initial orientation to the superintendent and school board. In some districts, BSC has found that the superintendents have oriented their own school boards. Since the school board is the body legally responsible for the district, explicit school board support for the improvement effort might be a persuasive factor in gaining the commitment of principals and teachers.

Planning

BSC intended that initial planning, like orientation, be carried out top-down, beginning at the superintendent's level. Needed planning includes both general logistical concerns (e.g., scheduling inservice time for principals and teachers, reproducing materials) and more technical issues (e.g., identifying data available for analyzing students' beginning of the

year strengths and weaknesses, and deciding how the district curriculum and testing programs be aligned).

The discussion of experiences and strategies related to planning is organized by three major BSC intentions for planning: (1) planning is to begin at the superintendent's level; (2) planning for much of the implementation for a school year (e.g., 1981-82) should be accomplished early in the calendar year (e.g., early 1981); and (3) planning should be ongoing, using data generated by implementation of the improvement program.

Planning With the Superintendent

In the three districts, the initial, sustained, and active participation of the superintendent in the planning process seemed crucial for successful installation and implementation. For example:

- In New Jersey, the superintendent attended almost all of the central office/principal training sessions. He initiated planning of a timeline of critical events (e.g., teacher inservice, observations, conferences, etc.) and saw that district administrators adhered to the timeline. Planning went smoothly and implementation in the district was timely.
- In the Pennsylvania district, the superintendent's delegation of responsibilities to an administrative assistant resulted in serious delays in important decisions (e.g., allocation of teacher inservice time).

These experiences agree with a conclusion of Rosenblum and Louis (1981): "the successful implementation of a districtwide change program is most effectively facilitated by a chief administrator who dominates both the planning process and the administrative decision making in the school system" (p.176).

Sustaining the superintendent's interest in planning seemed more successful when implementation was districtwide, or at least districtwide at the elementary level.

- The Pennsylvania district superintendent's attention to district planning and delivery of support was much greater when all 17 elementary schools were involved, than when only 5 schools were involved.

- In the New Jersey district where all K-8 schools were involved in the fall of 1981, the superintendent was active in planning and implementation, could easily direct other district resources to the effort (since it involved all schools), and could integrate discussions and training into regular meetings with principals.

- In the Delaware district, the superintendent's involvement in planning was not sustained. Only two of the district's five school buildings were involved.

Superintendents often wanted to delegate planning responsibilities from the outset. Such delegation usually affected implementation negatively. For example, delegation of responsibility in the Pennsylvania district resulted in training proceeding without resolution of implementation logistics (e.g., provision for inservice time, specified policies on teacher observations and conferences).

- One Pennsylvania principal interested in implementation confirmed this observation: after a planning session with principals (at which no central office staff person was present) she took the linker aside and said the other principals were not likely to participate seriously in planning and training "unless you get [the superintendent] to tell them it is a priority and they need to do it. He needs to release the [teacher] inservice time to get this going."

In the Delaware district, the BSC linker often planned with the director of special programs and other district office staff. In this instance, the planning seemed effective without the superintendent's direct participation, a result perhaps of the district's tight coupling and the superintendent's publically expressed interest in the program. However, some aspects of ADL were not implemented as intended (e.g., superintendent/principal conferences), and implementation was not districtwide.

In the New Jersey district, planning was generally easier because: (1) the superintendent, himself, readily assumed responsibility for planning; (2) he had purposely limited the number of innovations underway; and (3) he set aside time for regular monthly planning sessions with the BSC linker. These planning meetings included representatives from the principals' and teachers' bargaining units.

Planning Early in the Calendar Year

BSC intended that much planning for the subsequent school year be accomplished early in the calendar year. Barriers to this second major intent for planning were: (1) insufficient district time for planning; (2) loose coupling in the districts; and (3) the absence of conditions or practices that the improvement effort assumed were already in place.

The decision to conduct a field test was not made until April 1981. Thus, district planning for the 1981-82 school year began relatively late in the spring and was out of sync with the districts' cycles for budgeting and for allocating inservice time. In later years, the linkers learned the budget and inservice cycles and tried to pace district planning accordingly. In the first year, the only viable strategies for furthering implementation were to substitute expedient program methods for more elegant or ideal ones and to limit the implementation.

- In the Pennsylvania district, the late start in planning and the numerous reading basal texts used in the five schools made it impossible for central office staff to complete a text/test match for each series before the school year began. There also was no teacher inservice time to plan for year-long coverage. However, as an expedient, teachers and principals were taught to use descriptions of item domains to estimate the extent of coverage at several points during the school year.

- In the New Jersey district, there had been no budgetary or logistical planning for acquiring spring test results reorganized by fall class rosters. Thus, in planning for the year, teachers used the appropriate grade level reports.

Finding time to plan ahead with central office personnel (including but not limited to the superintendent) was difficult.

- The Pennsylvania district had a number of projects underway. Central office staff were often diverted in so many directions that scheduling planning sessions was difficult. The superintendent acknowledged this situation but felt strongly that by providing principals with a wide array of projects, each was more apt to find one that would work for him or her. This approach taxed the central office support system and placed a heavy planning burden on principals.

- In the New Jersey district, the superintendent reviewed existing projects and eliminated some to reduce the number of demands on central office staff and principals. By doing so, central office staff were free to work on a major curriculum documentation effort during the summer of 1981. That effort was central to the content component of the improvement effort.

Strategies that linkers adopted to obtain planning time and to make the best possible use of that time included:

- Identifying what decisions were needed and scheduling for year.

- Establishing a regular, monthly planning session with the superintendent.

- Listing decisions in need of immediate attention (along with some alternatives based on the linker's knowledge of the district) prior to planning sessions with the superintendent. Advanced planning by the linker with other involved central office staff aided the process.

- Learning the district budgeting and planning cycles so that decisions required for implementation could be included for consideration and support.

- Writing a monthly briefing letter to the superintendent reviewing recent decisions and accomplishments, as well as impending decisions. This alerts the superintendent to planning needs and to issues requiring his attention.

Another substantial hurdle in the planning process was the relative independence, or loose coupling, of district personnel responsible for the curriculum, testing, and allocation of inservice time. Since the improvement approach involves the alignment of curriculum and testing, the use of test data to analyze prior learning, and the use of inservice time to respond to identified opportunities for improvement, coordination among the three areas is crucial to successful implementation. Inclusion of relevant staff in the orientation and training sessions did not assure their later participation or cooperation. In all three test districts, the superintendent was the only person who had the authority to require communication or cooperative planning. Educating the superintendent about the necessity of such cooperation and motivating the superintendent to tighten the couplings proved to be substantial tasks but were the only BSC strategies that held much promise of success.

BSC staff also spent considerable time helping central office staff plan for tasks, some of which BSC assumed districts would have completed prior to BSC involvement. For example, it was assumed that districts would have aligned their testing program with their district curriculum (or basal text series). Similarly, two of the three districts had no requirements for mastery testing or criteria for judging mastery. Overall, a substantial amount of BSC technical assistance was directed toward helping districts put into practice conditions prerequisite to implementation.

Continue Planning Using Data

BSC's third intention for planning was that district leaders use data to assess progress and to plan additional training or resources, throughout

the year. However, districts were not accustomed to using formative evaluation data for decision making. First, central office staff and principals tended to be sidetracked by peripheral benefits, and second, central office staff and principals were accustomed to the expediency of using informal testimony from selected individuals as a basis of decision making.

- In the third year of implementation in the New Jersey district, the superintendent was so convinced that the principals were carrying out their roles as instructional leaders, and so involved in sharing his district's progress with audiences outside the district, that his attention to principals declined. He relied on principals' assurances that things were progressing well rather than data available to him. End-of-year interviews indicated that implementation had declined and test results in the spring of 1984 also showed a slight drop.

- The reading/language arts specialist in the Pennsylvania district used reports of certain teachers to reinforce her claim that all teachers viewed the effort as one of teaching to the test. End-of-year interviews with a sample of teachers from each school indicated that this view, while evident, was not pervasive.

The strategy that linkers most frequently pursued to encourage the district's use of data for formative evaluation was to model the behavior, that is, show by example how data that had been collected could be used in planning. The reaction to such modeling was generally quite positive.

- In 1983, the BSC linker met with the New Jersey district reading/language arts and mathematics supervisors to design an analysis of districtwide test results that would suggest areas where the curriculum sequence or the instructional materials might be weak. Although the supervisors had previously used test data to rank schools and to identify low achieving classes, they had not used the data to diagnose weak program areas. They were enthusiastic about the process once they were shown how it was done, and they repeated the analysis in 1984.

Conclusions

Although BSC's intentions for planning have not changed during the three-year period, three changes were made in strategies related to planning. First, the component increased the amount of information about planning provided to central office staff during orientation sessions. Helping districts through the process of comparing their present practices with those of the improvement system increased the districts' awareness of the amount and type of planning that is needed to improve instructional effectiveness. Second, the component built major planning sessions into the timeline of implementation events presented during the orientation. And third, planning guides were written for some of the tasks BSC had erroneously assumed either had been completed by districts (e.g., aligning curriculum and testing), or were already part of districts' routines (e.g., completing logistical arrangements for teacher training). These planning guides were incorporated into BSC training materials.

Training

The training originally designed by BSC was intended to provide each level of the district (central office, principals, teachers) with knowledge of the critical classroom variables and the variables management process. In addition, the training for central office staff and for principals was intended to help them become trainers of principals and teachers, respectively. The training for each level was divided into two major segments, one on managing instructional time and one on managing instructional content. The training intended for central office staff and for principals was similar; the training for teachers was considerably shorter as fewer

skills were included. Although each of the two segments included some attention to the related tasks and responsibilities at each level, this was not a major emphasis of the training as delivered in the fall of 1981.

As with orientation, it was intended that once BSC had trained central office staff, they would then train principals who, in turn, would train teachers. The training for central office staff and principals included some attention to their training of principals and teachers. However, given the press of time, this attention was limited.

The discussion of training experiences and strategies begins with some observations on the difficulty of scheduling training, and is then structured by the BSC intentions that (1) BSC train central office staff who in turn train principals, and (2) principals train teachers.

Scheduling Training

Scheduling training proved difficult as the districts were not accustomed to devoting the amount of time requested for initial inservice (25 hours for central office staff, 22 hours for principals, 6-9 hours for teachers) to one effort. District calendars included sufficient inservice time over the school year, but it was typically devoted to a number of different projects or topics.

Superintendents were very concious of how they spent their time. They argued that the present training for central office staff was too lengthy. While it was essential that they understand the ADL processes, it was not essential that they become highly skilled in every aspect of the training (e.g., classroom observation). In the future, BSC may tailor training more specifically to superintendents. The component is contemplating training

superintendents in a brief academy and suggesting that such an academy be a prerequisite to training other district personnel.

Two strategies BSC used in the field test districts to deal with the lack of inservice time for all district administrators were to shorten the time spent on initial training and to spread training sessions out over the course of the school year. However, there were problems inherent in both of these strategies. When inservice for central office staff and principals was conducted within one week (as was the case in the New Jersey district and other non-field test districts), participants reported that the week of training was too intense. BSC usually had to provide additional training to principals during the year to clarify ideas and correct misunderstandings; time originally set aside to address principals' implementation concerns was used for training. The second strategy, spreading training over the year, meant that implementation of some aspects of ADL was delayed. Also, some staff involved in this long-term training reported losing sight of the entire process.

Obtaining sufficient inservice time for training teachers was often even more difficult. In some districts, different levels of the system seemed to have informal "rights" to teacher inservice time. For example, in the New Jersey and Pennsylvania districts, the central office staff determined how some inservice hours would be spent and building principals were responsible for allocating the remaining inservice hours. An additional problem in all three field test districts was that much of the 1981-82 teacher inservice time had been assigned to other topics prior to the commitment to implement the improvement effort.

- In the Pennsylvania district, all 1981-82 teacher inservice time had been assigned prior to June 1981. Nevertheless, given the superintendent's concern, the five principals found ways to make the time available for teacher inservice. In that district in the 1983-84 school year, the district was able to allocate sufficient teacher inservice time for teacher training in all elementary schools.

- In the New Jersey district, the inservice time specified in the teachers' contract was less than that needed for the improvement effort. However, the superintendent authorized use of two additional half school days for teacher inservice.

Thus, while teacher inservice time was considered a scarce commodity and had been planned for or assigned in advance, the Pennsylvania and New Jersey superintendents were able to adjust calendars to address their priority. At times, the inservice time secured was somewhat less than that requested, but overall substantial amounts of time were made available.

Training Central Office Staff and Principals

One intention concerning how training was to be conducted was that the BSC train central office staff who in turn were to train principals. However, in none of the field test districts did central office staff, on their own, conduct training for principals. While the relatively short period of time available for preparation in the field test districts (April to September) may account for central office staff not training principals, BSC experience in other districts suggests that tradition and organizational concerns were also barriers. In the three field test districts, central office staff had previously provided inservice workshops directly to teachers, but not to principals. The line of authority in districts also seems to be a major factor. For example, in the Pennsylvania district, principals reported directly to the superintendent, and linkers sensed that other central office staff were reluctant to play any role that might even

suggest authority over principals. A number of central office staff have indicated that their training of principals was less effective than training supplied by external linkers. When they do train principals they are shown as little regard as the proverbial prophets in their own land.

In the field test year, principals and central office staff in each of the three districts were trained simultaneously by the BSC linker.

- In the Delaware and New Jersey districts, the superintendent's and assistant superintendent's attendance at these sessions enabled them to make decisions about implementation issues (e.g., use of observation information in the teacher evaluation process) as the issues were raised. They were also able, on the spot, to counter barriers to implementation that principals raised.

- In 1982-83 in the Pennsylvania district, the principals from the five field test schools, central office staff, and BSC linker shared responsibility for delivering training to the remaining twelve principals. This strategy provided the original five principals with increased understanding of the improvement system. It also gave them an opportunity to answer their colleagues' charges that the training could not be implemented. The testimony of the five field test principals helped overcome the resistance of the new principals more effectively than the external linker's arguments. Linkers were amazed to see some of the original five principals, who had not been the most enthusiastic participants, defend the improvement process to their colleagues.

As noted in the documentation report of the field test (Biester et al., 1983), central office staff and principals felt relatively confident in carrying out their implementation tasks after receiving training. As expected, linkers and central office staff felt that principals first grasped and put to use the more mechanical aspects of their training. The more difficult aspects required follow-up review and opportunities for practice. For example, almost all principals felt confident in their ability to observe classes for student engagement rate. However, most were less confident and demonstrated much less skill in the more complex behaviors

such as conferencing with teachers or observing classes for critical lesson elements.

While the principals' need for follow-up and practice can be partially attributed to the limited amount of time available for initial skill training, it also reflected some principals' lack of skill and experience with more general skills (e.g., planning, training, and conferencing). Principals appeared to vary widely in these skills--a fact that central office staff readily acknowledged. The New Jersey district supported weak principals by providing individual coaching either from the BSC linker or from central office staff. However, the Pennsylvania district was less able or willing to provide such coaching, and central office staff rarely worked with individual principals. The concept of prescribed or differentiated inservice to address the training needs of individual principals was not operative in any of the three districts.

Central office staff and principal reactions to training were quite positive with respect to the relevance and quality of the training. However, most trainees reported that training was too intense and that there were too many materials to be assimilated so quickly.

Training Teachers

Although BSC staff conducted most initial training of principals, principals trained teachers, or assisted in the training, although hesitantly. Principals were not accustomed to training teachers; they customarily brokered out the building inservice time to central office staff or to outside consultants. To support principals in training teachers, BSC provided videotapes that conveyed the technical aspects of training.

Observations and interviews with principals indicate that BSC-developed videotapes conveying the program's rationale and the more technical aspects of training were valuable aids in training teachers. BSC linkers also reviewed with the principals materials prepared specifically to guide their training of teachers. In recent implementations, more time has been allotted during the principals' training to preparation for the teacher training session. This seems to be a very helpful strategy for improving the teacher sessions. Linkers and central office staff devised additional strategies for supporting principals in training teachers.

- In order to provide principals with support in training and, in some cases, to reduce video equipment demands, the Pennsylvania and New Jersey districts paired principals or teamed a principal with a central office person. Principals in Pennsylvania who were paired in groups of two or three to give joint presentations for the teachers reported that this teaming was helpful to them, affectively, but they felt that the teachers would have been more satisfied if each building had conducted its own inservice. Despite many principals' initial hesitancy to train teachers, a number of principals indicated that training teachers helped them achieve a new sense of instructional leadership.

- In the Delaware district, the BSC linker, central office staff, and principals shared the leadership of most teacher workshops. The principals had been reluctant to lead training during the period of program development. However, they were more comfortable with this role after using the program for several years.

Several teacher training sessions in each district were observed and BSC interviews and questionnaires asked for teachers' reaction to the quality of the inservice. As was true for the principal-led orientation sessions, the quality of the observed sessions varied widely. Some were excellent, some were fine, and a few were poor. The quality of the sessions was obviously dependent upon the principals' knowledge of ADI, their commitment to the program, and their ability as trainers. Sessions which

linkers judged as poor almost always included major deviations from the scripted training. For example, at one building the principals showed all the videotape segments consecutively, rather than interspersing them with hands-on work sessions as intended. In other instances, principals with a reputation for poor delivery did well, given the scripted training. One teacher in such a situation noted that the inservice was the best session her principal had ever conducted.

Teachers' reactions to training varied from school to school within the districts. Interview data suggest that teachers reacted in the manner predicted by Gall et al. (1982)--they do not favor a tight linkage between inservice education and assessment of student achievement. Gall et al. suggest that this attitude reflects teachers' concerns that student achievement test results could be used to evaluate their performances or hold them accountable. This concern was particularly evident during the fall 1983 training in the Pennsylvania district. Not only was there a great deal of attention in the national press to teacher evaluation and merit pay, but the district was also discussing the development of new principal and teacher performance evaluation procedures and was increasing the accountability of supervisors.

Conclusions

Between 1981 and 1984, several significant changes were made in the intents for training and in some of the strategies for delivery of training.

First, experience early in the planning with field test districts indicated that training ought to include greater attention to the roles of participants (teachers, principals, and central office staff) in

implementation, and, specifically, ought to provide more attention to the participatory supervision aspects of implementation. The development activities BSC undertook to effect these changes were described in chapter 3.

Second, BSC still considers top-down turnkey training to be an important and worthwhile intent, but realizes that in relatively small districts, especially those with few central office staff, it can be difficult to find time for central office staff both to be trained and then to train principals. Thus, BSC has become more amenable to training central office staff and principals simultaneously. In these cases, several planning sessions and brief training sessions may be held with only the central office staff. BSC has attempted this strategy with several small non-field test districts and found it to be workable. However, the extent to which such districts will be successful in transferring such training to new principals or new central office staff is unknown.

Other changes made or proposed for training are, in the main, changes in strategy. These include:

- Spreading initial training in the two major components, time and content, over a two-year period. Implementation of the two components is then likewise spread over a two-year period. BSC experience with this strategy is limited.

- Restructuring the training sequence for the content component. The training in the content component proceeds smoothly only if the district already has in place a curriculum, a match between the curriculum and the testing program, and a testing program that facilitates diagnosis of class strengths and weaknesses. BSC experience has indicated that these elements tend not to be in place. The first step in the revised training would be a session with central office staff to explain the rationale of the content management process and make specific plans for provision of the needed data, curriculum, and content matches. Principals' training will be revised to be similar in scope to the teachers' training--making use of the specific curriculum and data formats the principals will be using with their teachers.

This strategy may prove to work well in conjunction with spreading training and implementation over two years. As the district works to implement the time component, it can plan and prepare to implement the content component during the second year. BSC has recently begun (September 1984) working with a number of districts with this strategy.

- Improving existing training activities and training packages to (1) reflect the changes in content training described above; (2) reduce the number of district training pieces; (3) increase the amount of trainee participation in training; and (4) provide more attention to the process of turnkey training (e.g., provide more opportunities in the training for demonstrating and having the trainees practice their roles in the training of principals or teachers). Many ideas and suggestions for these revisions have been accrued and a few have been attempted in recent sessions. Revision of materials is planned for the coming fiscal year.

- Delivering training to superintendents in a separate academy. The academy would offer very abbreviated training in technical skills but stress the central office decisions and resources needed for implementation. Both the superintendent and the external linker would be better prepared to make a decision on the appropriateness of implementing ADL in the district after the superintendent participated in the academy.

CHAPTER FIVE

IMPLEMENTING, EVALUATING, AND INSTITUTIONALIZING

BSC has always assumed that after completing training in the management of classroom variables district staff would need assistance in transferring their new understandings into practice. Therefore, BSC (1) provided technical assistance during and following implementation, and (2) encouraged districts to take steps to evaluate and institutionalize their implementation of ADL. This chapter focuses on BSC staff experiences with technical assistance, and the effect of technical assistance on implementation, evaluation, and institutionalization of ADL.

The chapter has three sections, one for each district. Each district section discusses:

- general characteristics of the district and the history of its cooperation with RBS
- the ways BSC and district staff supported implementation of key program elements, and the extent of that implementation
- the activities BSC and district staff undertook to formatively evaluate the implementation
- the activities BSC and district staff pursued in attempting to institutionalize the program.

The three district reports follow the same outline but vary in the amount of detail included, especially for the two years following the field test year. This variation stems from the differences among the districts in the amount of leadership assumed by district personnel and the corresponding role of the BSC linker in those years. In the Pennsylvania district, the BSC linker was actively involved in training additional principals and leading principal seminars. In New Jersey, district leadership assumed a

prominent role, and thus the BSC linker provided somewhat less frequent technical assistance and coaching. In the Delaware district, changes in district leadership resulted in very limited BSC contact. In spite of these differences each report presents some interesting insights into the process of building local capacity, and together the three reports permit some interesting comparisons and constrasts.

The Pennsylvania District

The Pennsylvania district contrasts with the New Jersey and Delaware districts because it is larger (with a 1981 student population of about 12,000) and was not involved in the development of Achievement Directed Leadership. The district, which serves an industrial city and its surrounding boroughs, is the fifth largest in the state, and in 1981 included 17 elementary schools (K-6), 4 junior high schools (7-9), and 2 senior high schools. (In the fall of 1982, the four junior highs became middle schools housing grades 6, 7, and 8.) The district's minority population, about 12 percent of the total student population, is predominately Hispanic. Prior to the field test, districtwide reading and math achievement scores were at the 55th percentile for math and the 50th percentile for reading. There was little press for improving achievement.

The district's history of "loose coupling" was documented in the 1982 Middle States Association evaluation:

> Prior to the current superintendent, there had been a succession of superintendents who served only briefly. One of the obvious consequences of this was a diffusion of the elementary program and services as principals tended to focus on particular needs of the communities served by their

> respective schools. Good as this may be for some purposes, the consequent blurring of lines to and from the central office deprived the schools of the central leadership and curriculum management services vital to the city-wide development and monitoring of quality education. (p.2)

One example of the impact of this history was that prior to 1980 each junior and senior high math teacher selected his/her own textbook. Also, BSC linkers noted that as late as the 1983-84 school year, a variety of report cards was used in the district's elementary schools.

The district agreed to participate in the 1981-82 field test, primarily for staff development purposes, with partial implementation of the approach in five elementary schools. Key central office staff involved in the implementation were the superintendent, the superintendent's administrative intern, the director of instruction, and two curriculum specialists, one for reading and one for math. Four resource teachers were also included in the training and seminar sessions.

In the summer of 1982, plans were developed to expand the implementation to other schools in the 1982-83 school year. However, the only implementation activities that actually occurred were the training of the remaining 12 elementary school principals and 1 middle school principal and the development of plans for implementation in all 17 elementary schools. The district leadership exerted virtually no press for immediate districtwide implementation or for active continuance of the approach in the five field test schools.

In the fall of 1983, the superintendent gave the district's new director of instruction responsibility for implementation districtwide at the elementary level, but did not give him the line authority over principals necessary to mandate implementation decisions and procedures. All

elementary schools were involved in the implementation in 1983-84. However, schools varied in their degree of implementation of program elements.

Technical Assistance to Build Capacity

The following discussion of technical assistance is organized around key program implementation elements--attention to the critical classroom variables and the four elements described in chapter 3. Each section describes the strategies employed to promote and sustain implementation of the program element along with the extent to which implementation actually occurred. Table B-1 in Appendix B gives a summary of the interview and questionnaire data relevant to the extent of implementation of four of the elements--attention to classroom variables, principal seminars, principal/teacher conferences, and superintendent/principal conferences.

Attention to classroom variables. ADL gives special attention to four classroom variables: prior learning, student engaged time, coverage of criterion content, and academic performance. BSC technical assistance to the district over the course of the three years was directed primarily toward providing, or helping the district provide, principals with the information necessary to monitor content coverage, prior learning, and the academic performance variables.

Early in the 1981-82 field test year, BSC staff supplied the district with the text to achievement test match for two math basals and with the item domain descriptions for the reading portion of the achievement test. These documents gave principals a means of helping teachers plan their coverage of math content and a means by which principals and teachers could monitor that coverage. Not until very late in the school year was BSC able

to supply a text/test match for two reading basals. Although BSC development of the text/test matches was a heavy investment of technical assistance, it is unlikely that principals and teachers would have attended to content coverage in the 1981-82 implementation without the matches.

In the field test year, the five principals monitored student engaged time in both math and reading. They also monitored content coverage primarily in math and to a lesser extent in reading. BSC staff used class lists supplied by the principals and district test records to compute each math and reading class's general achievement level. Principals were asked to share this information with teachers and help them set appropriate goals. Little attention was given to specific prior learning strengths and weaknesses since appropriate test data were not available. BSC interviews and BSC staff experience indicate that the academic performance variables (success, mastery, and review) were not consistently attended to, and in many cases, standards (e.g., what constitutes mastery) varied from teacher to teacher and from school to school.

In 1982-83 BSC and district staff concentrated on training all 17 elementary school principals. BSC staff instructed all principals on how to perform a text/test match and assisted them in matching the district's new, widely-used math basal to the achievement test. This content match provided the information necessary for teacher planning and monitoring of coverage in math. BSC's technical assistance successfully enabled the district to carry out an activity for which BSC had assumed responsibility the previous year. Without this technical assistance it is unlikely that the content match would have been completed.

During the 1982-83 school year, three of the five principals previously trained reported paying little formal attention to the classroom variables. However, they did note that when they conducted classroom observations they had an increased awareness of certain factors, such as student engaged time. They also reported having informal discussions with teachers about the critical variables. The fourth principal helped teachers with school year planning based on the text/test matches but did not systematically monitor student engaged time. The fifth principal gave systematic attention to the coverage and time variables and, to the extent allowed by available data, to student prior learning. In addition, a number of the newly trained principals put aspects of their training into use during the 1982-83 school year, although implementation was not required. For example:

- One principal reported using the engagement rate form in routine classroom observations.
- The district provided principals with copies of the test item domain descriptions and text/test matches as they were completed. Most principals shared these with their teachers and encouraged teachers to use the information to pace their instruction.

Although the technical assistance provided by BSC and the district seemed to focus principals' attention on the critical classroom variables, relatively little systematic attention was paid to the cluster of critical variables in 1982-83. This is not very surprising, given the district's lack of press for implementation.

During the 1983-84 school year, most of the technical assistance provided by BSC and the district was, although related to the classroom variables, directed at one of the other four program elements and therefore is reported later in this section. During this school year, the district

required all 17 principals to conduct three sets of classroom observations and three principal/teacher conferences. Principals and teachers attended to student engaged time in math and reading and to coverage in mathematics. For the first time, teachers were expected to complete year-long plans for their math classes and for one of their reading groups. However, teachers were asked to prepare year-long plans in reading without the benefit of text/test matches. (This lack of matches was due to (1) the large number of reading basals being used; (2) the reading curriculum specialist's lack of enthusiasm for the project; and (3) the lack of leadership from the former director of instruction.) Teachers complained about the amount of work involved in planning without such matches. In response, the district dropped its requirements for year-long planning in reading and promised the local teachers association that in the future text/test matches would be completed by the district before teachers were required to complete year-long plans. Nevertheless, principals were asked to monitor teachers' coverage in reading by using a list of test item domain descriptions provided by BSC. End-of-year interviews suggest that systematic attention to coverage in reading occured in some but not all schools. When the district and BSC had provided the information about the text/test match (i.e., math), attention was given to coverage. When this information was not supplied in a readily usable form (i.e., in reading), less attention was given to the variable.

By October 1983, the principals had a fairly good grasp of what was required to monitor coverage and student engaged time. However, superintendent/principal conferences suggested that principals' and teachers' attention to mastery could be improved. BSC and district staff together planned

and led several principal seminars that included discussion of standards for mastery and the mastery tests available in the district's basal texts. The director of instruction and the curriculum specialists strongly suggested that principals encourage their teachers to use these tests and the associated mastery standards, but their use was not mandated. End-of-year interviews indicated that the technical assistance provided by BSC and the district improved the data collection and conferencing of a number of the principals.

On numerous occasions, BSC staff had discussed with the director of instruction, the curriculum specialists, and the superintendent the need for item analysis data to determine student prior learning strengths and weaknesses. The superintendent asked the director of instruction and the director of pupil personnel services (responsible for testing) to see that teachers received item analyses. The BSC field staff believed that these central office staff gave greater attention to the superintendent's request for action than they might have at other times because they both considered themselves candidates for the then vacant assistant superintendent position. They had strong personal motivation for demonstrating compliance. BSC technical assistance in this effort involved reviewing with the superintendent, the director of pupil/personnel services, and the director of instruction the need for the data and the specific plans for its use by teachers and principals. BSC personnel also met with the central office staff and the test company representatives to clarify the district's request for the item analysis data.

Thus, by the summer of 1984, the district or BSC had arranged for or provided data needed for managing the critical variables, with the excep-

tion of the text/test match needed to monitor and manage coverage in reading. Also, the district had finally agreed to limit reading text adoptions to one of four approved basals. In the late spring of 1984, BSC field staff shared with the superintendent the major findings of the BSC end-of-year interviews of principals and a sample of teachers. The interviews indicated that long-range instructional planning was the least implemented aspect of the program and that the department of instruction had spent little time on ADL. The superintendent charged the director of instruction with completing reading text/test matches over the summer. By the end of the summer, one of the four district-approved basals had been matched to the test and the district reading curriculum.

Principal seminars. BSC intended that central office staff conduct regularly scheduled principal leadership seminars. Seminars were intended to be problem-solving and planning sessions that would help maintain instructional improvement as a priority and sustain and improve leadership practices.

During the field test year, BSC staff led eleven two-hour seminars for the five principals implementing the program. The seminars were also regularly attended by a district math specialist, the reading/language arts specialist, and also the four district "resource teachers" (whose job assignment for the year was the design of the district's middle school program). The BSC/district liaison (the district's administrative intern whose major task was to head the middle school design group) was always present to begin seminars but frequently left early to do "other assignments." The director of instruction attended two seminars; the superintendent attended one seminar.

BSC's planning and delivery of the seminars were crucial to the implementation for the year. Early seminars were used to complete principal training. Instead of January seminars, BSC staff met individually with principals to answer questions and review completed principal/teacher conference forms. Later seminars included problem solving for implementation and planning for implementation in 1982-83.

Each seminar agenda was discussed with the district/BSC liaison, and he faithfully carried out the necessary logistical operations. However, there were only two instances in which the district evidenced clear leadership.

- The superintendent, at BSC's special request, attended a portion of the second seminar in October. At that time, he distributed and discussed the implementation timeline (deadline for rounds of principal/teacher and superintendent/principal conferences).
- After receiving evasive answers from principals concerning their progress in conducting observations, the district/BSC liaison developed (with BSC assistance) and sent out over the superintendent's signature an implementation report form to be completed by each principal every month and submitted to the liaison.

In 1982-83, seven seminars were held, one per month except during the teachers strike (November and December). During the year, the district/BSC liaison, an administrative intern, usually attended seminars only long enough to see the meeting begin. The math and reading curriculum specialists continued to attend seminars regularly; the director of instruction did not attend any seminars. The superintendent's attendance at the February and March seminars, again the result of BSC field staff appeals, increased principals' attentiveness; however, the change did not last in his absence.

BSC staff planned and led the first three seminars with only limited, logistical input from the district liaison. In February, BSC staff began planning for seminars with the two curriculum specialists. Agendas were designed jointly and the specialists assumed responsibility for portions of the seminars. There were several reasons why this strategy for obtaining and transferring seminar leadership was only somewhat successful:

- The director of instruction, the curriculum specialists' supervisor, showed very little interest in the program.
- Curriculum specialists had no line authority over principals and seemingly preferred not to assert any proactive leadership.
- The reading specialist had some philosophical reservations about the ADL model.
- In April, the math curriculum specialist was assigned to a new position and his replacement was not relieved of her other responsibilities until the end of June.

BSC field staff perceived that the lack of district leadership and the October 1982 decision not to implement the program with teachers until September 1983 lessened principals' interest in the seminars. Nevertheless, the attention that a number of principals gave to content coverage and student engaged time seems to have been a direct result of the seminars. The seminars provided the principals with the conceptual framework for implementation the following year, and prompted some principals to call for district support of the improvement effort.

During the 1983-84 school year, there were ten hour-long seminars. The new director of instruction was initially very enthusiastic about establishing his leadership, and during the year BSC was able to transfer to him the responsibility for leading seminars, but not for planning them. The director of instruction attended all but one of the seminars and he or the curriculum specialists led portions of four of the last five seminars.

Although BSC's role in the conduct of seminars was reduced, BSC staff planning for them was probably critical. Initially, the director of instruction lacked the necessary program knowledge. Toward the end of the school year, his enthusiasm waned somewhat and he seemed more anxious to please than to lead principals. However, he was always responsive to BSC inquiries and suggestions and BSC staff were able to sustain the momentum of the seminars with his support.

Principal interest and attention at seminars were heightened by the immediacy of implementation and by the district leadership's increased involvement. BSC interviews and discussions with the principals and the director of instruction indicated that implementation problems and concerns were addressed not only in seminars attended by BSC but in several other principals' meetings, and in phone calls between the director of instruction and principals and between newly trained principals and the five field test principals. Many principals were concerned that the district leadership set clear and equitable expectations for them. The district was in the process of selecting one or more elementary schools to close in response to declining enrollment, and this seemed to inspire some competitive implementation efforts.

Interview data suggest that principal seminars did help improve implementation. For example, the superintendent/principal conferences indicated that there were a number of classes in which the percent of students mastering content was low, and that the source of the principals' data was often teacher judgment. Consequently, two seminars were devoted to reviewing the importance of mastery and the means of assessing it. Interview data suggest that these seminars had an impact on principals' data collection and on their conferencing with teachers.

Throughout the three years, the seminars were the primary opportunity for contact between BSC personnel and principals. As such, seminars served as an informal but regular source of information on the status of implementation activities and helped BSC staff in formulating strategies to promote implementation.

Principal/teacher conferences. BSC intended principal/teacher conferences to be formally conducted conferences in which a principal and a teacher review data on all of the critical student behaviors, identify any opportunities for improvement, and agree to improvement plans. The component suggests that principals conference with all teachers at least three times a year and perhaps more frequently with teachers with many improvement needs. During the summer of 1981, BSC developed a form to record and structure these conferences.

Early in October 1981, the BSC linker met with the superintendent, the director of instruction, and the district/BSC liaison to suggest an implementation timeline that called for three principal/teacher conferences. The timeline was approved by the district leaders and then shared and discussed with principals at an October seminar. During October and November, BSC also reviewed the conference form with the district/BSC liaison and planned adaptations. For example, since implementation in 1981-82 did not include teacher-developed year-long plans, questions that referred to such plans had to be revised or omitted. The two December seminars were devoted to introducing the form and guiding principals through BSC-designed case study conferences.

Early in the 1981-82 school year, the district assigned a resource teacher or a curriculum specialist to assist each of the principals with

observations or conferences, as needed. However, only two of the resource teachers assisted principals with classroom observations (one or two observations each), and the reading curriculum specialist assisted only one principal who was having difficulty with conferencing. This low level of district assistance can probably be accounted for by the following facts:

- the schools were relatively small (6-8 teachers)
- the curriculum specialists' supervisor (the director of instruction) showed very little interest in the improvement effort. The specialists responded to principals' requests, but they were not proactive in addressing principals' needs
- the resource teachers' supervisor (the BSC/district liaison) wanted the resource teachers to attend to their primary responsibility--design of the middle school program.

Questionnaire and interview data indicate that almost all teachers had three conferences with their principal during the 1981-82 school year. Principals and teachers reported using conference forms, identifying needs, and discussing improvement strategies. Three of the four principals who held principalships before September 1981 reported that prior to 1981 they had not conducted such structured conferences with teachers. Of the twelve teachers who were interviewed by BSC staff, nine indicated that the conferences were helpful to them in identifying needed changes and selecting change strategies.

In the 1982-83 school year, only two of the five trained principals reported holding formal conferences with teachers. One principal used the conference form in two conferences with each teacher and in additional conferences with selected teachers. The second principal conferenced only once with each teacher and attended to content coverage, prior learning,

and academic performance; but he did not collect data on or discuss student engaged time.

In the 1982-83 school year, BSC assistance directly related to principal/teacher conferences was provided during the spring seminars. BSC staff pointed out the Principals Handbook materials on conferencing and guided principals through two BSC-designed conference case studies. The district leadership did not provide the five field test principals with an implementation timeline, or with any specific expectations for implementation.

In 1983-84, the first year in which all 17 principals were expected to implement the program with teachers, BSC again proposed to the superintendent an implementation timeline. At the same time, BSC shared with the superintendent interview data indicating that without district expectations only two of the five principals made a concerted effort to continue implementation in 1982-83. This information helped to convince the superintendent of the need for sharing clear expectations. The new director of instruction agreed to the timeline (with minor changes) and decided to use a variation of the district report form (developed in 1981) to monitor principals' classroom observations and conferences. The district agreed to three of the four sets of classroom observations/conferences proposed by BSC and encouraged principals to conduct additional conferences with selected teachers. As noted above, principals were very concerned in 1983-84 with issues of equity and compliance. While many principals supervised only 6-8 teachers, three or four principals supervised as many as 18 teachers. District guidelines asked principals to include every teacher in at least one set of observations/conferences, to include the vast majority of teachers in three rounds, and to spend at least 25 percent of each day observing or conferencing with teachers.

The curriculum specialists and director of instruction supported principal/teacher conferences by answering principals' questions during informal meetings and telephone conversations. Central office staff indicated that most of these conversations included requests for improvement strategies. Although it was clear to central office staff that principals varied in their ability to conference with teachers, BSC knows of no proactive support on the part of the central office staff to help principals improve their conferencing skills.

BSC and district support for conferences can be assessed by conference frequency and the reported success of the conferences.

- All 17 principals conducted conferences with teachers. Eleven of the seventeen principals conferenced with all regular classroom teachers. Nine of the eleven had three or more conferences with all of their regular classroom teachers.
- Twenty of the thirty-four teachers interviewed said that conferences helped them with classroom management and gave the interviewer specific examples of changes they made in classroom management. Fourteen of the thirty-four teachers said that the conferences helped them improve the quality of their instruction and were able to give the interviewer specific examples.

Interview data from the curriculum specialists, the principals, and a sample of teachers suggest that for most principals three structured conferences around specified, measurable variables, represented a vast change from previous years.

Overall, it is clear to BSC that the implementation was sustained only when there were specific district expectations for principal/teacher conferences and systematic monitoring of them. Interview data suggest that the structured conference form gave principals a focus for their observations, conference discussions, and plans for change.

Superintendent/principal conferences. The ADL leadership plan calls for the superintendent to hold formal supervisory conferences with principals to review classroom data and to discuss improvement opportunities. The plan calls for at least two such conferences during a school year.

The implementation timeline suggested to the superintendent in October 1981 called for two rounds of superintendent/principal conferences, one in March and one in May. BSC staff described the conferences and reviewed the existing form with the superintendent. He agreed to conduct the conferences with the five principals.

The timeline for these conferences was distributed to the principals during an October seminar at which the superintendent was present. During an early February seminar, BSC field staff reviewed the purpose of the superintendent/principal conferences and explained how to complete a summary of school data for review during the conference. Principals seemed surprised by the idea of a conference with the superintendent and asked a few questions. It appeared that several principals had not planned on the conferences actually occurring, and had not collected all the needed data. BSC also prepared guidelines for the superintendent and tutored him in the use of the superintendent/principal conference form.

In March, the superintendent conducted conferences with each of the principals. During end-of-year interviews, most principals reported that although the superintendent demonstrated some discomfort with the form, the conferences stimulated their first substantive discussion with the superintendent about instructional issues.

The conferences fulfilled the intended purposes: information flowed from the classroom to the district level, the superintendent's interest in

implementation was demonstrated, and principals were prompted to observe classrooms and to conference with teachers. However, conferences did not result in the intended district support to principals or teachers. Also, the proposed May conferences were never held.

In the 1982-83 school year, no superintendent/principal conferences were scheduled as school level implementation was not required.

In September 1983, BSC met with the superintendent and the district's new director of instruction to discuss implementation concerns. This year, the superintendent raised the need for an implementation timeline. The superintendent and director of instruction made minor changes in a timeline the linker suggested. The superintendent accepted the BSC suggestion that he portray implementation as a district effort by presenting the timeline at a principals' meeting that BSC would not attend. Unfortunately, the memo distributed at the meeting included references to RBS along with the timeline--thereby not placing ownership squarely on the district.

The 1983-84 timeline included two rounds of superintendent/principal conferences, one in late January and one in late April. Prior to the first round of conferences, BSC prepared and led a segment of a principal seminar to help principals prepare for the conference with the superintendent. Specific instructions were given for completing the data collection section of the conference form. The BSC linker also reviewed the conference form (revised since 1981) with the superintendent and director of instruction. The linker encouraged the superintendent to review with each principal the past several years' student achievement data and to ask each principal for his/her school achievement goals for the coming year. Curriculum specialists in the district have routinely prepared five-year longitudinal reports on

student achievement organized by grades within buildings. The primary use of the reports has been for school board presentations, but the linker urged the superintendent to use them at the conferences in order to focus principals' attention on the intended outcome of the improvement effort. The superintendent:

- charged the director of instruction with the scheduling of conferences for all 17 principals during the remaining two weeks of January.
- charged the director of instruction with (1) reviewing the longitudinal math and reading data for each school; (2) attending the conferences; and (3) assuring that principals came to the conferences prepared, with the required data and with some of their own ideas about their school needs and goals.

The director of instruction carried out those tasks, and later he and the superintendent conferenced with each of the principals.

- All 17 principals reported that these conferences represented a major change from past practice. (The five field test principals acknowledged that a similar conference was held in 1982--but that no such conference was held prior to 1982 or in 1983.)
- During end-of-year interviews, about one-third of the principals felt that the conference was a mechanical accountability check, whereas the other two-thirds felt that the conference was worthwhile. BSC interview results suggest that those principals that seized the opportunity of having the superintendent's ear, and spent time carefully preparing their "case" felt that the conference was valuable.
- Four principals indicated that instructional issues they perceived as not directly related to ADL (e.g., class size/teacher distributions) were also discussed at the conferences. In two instances the principals reported success in obtaining requested instructional resources.

The second set of superintendent/principal conferences scheduled for April 1984 was never held. However, the one round of conferences that was conducted seemed to:

- prompt classroom observations and conferences
- convey data from the classroom to the district level
- demonstrate the superintendent's interest and commitment
- identify one significant opportunity for improvement common to a number of buildings: the lack of uniform sources and standards for mastery and the relatively small amount of attention given to mastery.

Differentiated inservice. If district reform and renewal are to take place, the opportunities for improvement identified in seminars, principal/teacher conferences, superintendent/principal conferences, and informal discussions must be addressed. The leadership plan suggests that the district office and principals be proactive in providing for needed small or large group inservice based on diagnosed needs.

In the Pennsylvania district, there has been little differentiated inservice from the district level. During the field test year, all differentiated inservice provided to principals was in the form of technical assistance from the BSC linker. For example, a BSC linker assisted two principals in presenting to their faculties the rationale for work with the content variables. On another occasion, the linker suggested that a principal was in need of special assistance with the conference form and that one of the curriculum supervisors provide the needed coaching. The director of instruction replied that the principal would have to make do with the same level of assistance as each of the other four principals. On one ocassion district staff agreed that principals could benefit from a review of the district's standardized testing procedures and an analysis of achievement data. The district test coordinator held this review for all staff involved in the ADL implementation. The linker helped the testing

coordinator integrate his presentation with the work done in ADL, using the opportunity to inform the coordinator of the goals and objectives of the improvement effort.

In 1982-83, when the district emphasized training of the 12 remaining elementary principals, neither BSC nor the district provided differentiated inservice. The principals elected to have their routine district inservice be a presentation on a clinical supervision model compatible with ADL. BSC staff attended the principals' inservice, and pointed out where the two models were compatible.

In 1983-84, the new director of instruction had a more positive attitude toward differentiated inservice. He reported helping principals with aspects of their implementation in numerous phone calls and short informal meetings. In response to parental concerns about one teacher, the district had the two curriculum specialists (as well as the school principal) observe the teacher and provide individual assistance. They reported using strategies contained in ADL materials to help the teacher with classroom management.

The 1984 end-of-year interviews with principals indicated that during the superintendent/principal conferences the superintendent had informed each principal that the curriculum specialists would respond to any requests for assistance or support. Many principals commented that they never requested such support as it was not needed. Although central office staff were aware of some principals' opportunities for improvement, the primary mode of assistance was one of responding to requests. Similarly, the director of instruction balked at officially "excusing" the more skilled principals from any of the seminars. Central office staff seemed to fear that differentiated treatment would lead to dissention.

While the district was responsive to widespread opportunities for total group inservice (e.g., the seminars devoted to mastery and to the testing system), the district has not provided for tailored inservice for smaller groups of principals or teachers who share common opportunities. Since principals vary widely in their prior knowledge and skill, the design of seminars for the total group has been difficult, and the district has been hesitant to provide a variety of activities to match the variety of improvement opportunities. Although able principals can be the source of ideas and strategies for the weaker principals, this role becomes difficult over time. The BSC linkers continue to advocate differentiated inservice in spite of central office reluctance.

Technical Assistance for Evaluation

Pincus and Williams (1979) suggest that innovators must keep their eye on the primary goal or intended benefit of an innovation. While secondary benefits (e.g., increased morale, recognition) may be reinforcing, there is a danger that these secondary benefits may distract educators from the primary goal. From the outset, BSC intended to provide technical assistance for evaluation to assure that districts focused on the primary benefits--improved instruction and increased student achievement. While BSC resources prevented the systematic collection and analysis of data on changes in instruction (classroom conditions) before and after implementation, data were gathered on participants' perceptions of changes in their roles--especially the extent to which such changes reflected the leadership plan. Data were also gathered, by both BSC and the districts, on student achievement.

Role changes. One goal of ADL is for district staff to carry out activities defined in the leadership plan. If staff alter their behaviors to conform more closely to those specified in the plan, the program has had an impact. The discussion of role changes of educators in this district is based primarily on interviews BSC conducted with central office staff, principals, and teachers. (A complete interview schedule is in Appendix A.) An interesting concomitant benefit of the BSC interviews was that they prompted central office staff, principals, and teachers to reflect on their leadership activities. In some cases, this reflection led the interviewee to establish his or her own goals for improvement. The district carried out some information gathering activities, although these were less structured and involved a smaller sample of individuals. In a few cases, BSC staff assisted the central office staff with their data collection. The following discussion of perceived role changes is organized by levels--superintendent, central office staff, principals, and teachers. It concludes with a review of how BSC helped the district use the collected data for planning.

In the spring of 1982, the superintendent reported that the program, specifically the superintendent/principal conferences, had increased his communication with principals on issues related to instruction. He noted that he would like to expand the conferencing procedure to all principals. The superintendent also reported that involvement with ADL had increased the amount of inservice the district provided on instructional leadership. The two curriculum supervisors felt that the superintendent's role had changed as a result of the program. One stated that the superintendent had become a much stronger instructional leader, whereas the other supervisor

felt that the superintendent demanded greater accountability from principals. Most of the principals indicated that the superintendent's role changed a great deal or somewhat. The change most noted was the superintendent's conferencing with principals about instruction.

The 1983-84 director of instruction, though new to the district, felt his role had changed somewhat in that he would have acted differently if he had not been involved in the program. Specifically, he would have given less attention to instructional pacing and coverage, daily success, and year-long instructional planning. One curriculum supervisor stated that her role had changed somewhat, and noted planning for content coverage as a major change. The other curriculum supervisor stated that she had changed very little. She simply focused in a different way on her usual activities. Although teachers varied widely in their opinions of central office staff role changes, many felt unable to make judgments as they had little communication with central office staff.

Most principals felt their own role as instructional leader had changed either somewhat or a great deal as a result of their involvement with the program. Several principals reported more direct contact with teachers and students, more awareness of the critical classroom variables, and more regular observation of teachers along more specific dimensions. The 1983-84 director of instruction perceived that principals had changed a great deal, especially in their new emphasis on specific classroom variables, and increased regard for long-range instructional planning. During a 1983 planning meeting, the director of testing reported that the five principals involved in the field test had increased their use of test data for instructional planning. One of the curriculum specialists also noted that

principals had become more involved in instruction, had improved their classroom observations, and were now using test results to identify strengths and weaknesses. However, the other curriculum specialist was unsure whether the principals' roles had changed. In both the 1982 and 1984 interviews, most of the teachers reported that the principals' roles had changed somewhat. The change most commonly noted was principals' classroom observations of student engaged time.

The district also assessed principals' performance of some instructional leadership activities.

- In the summer of 1983, the director of instruction and acting assistant superintendent interviewed each of the principals involved in the 1981-82 field test about their use of ADL in 1981-82 and 1982-83. Information gathered was used to make decisions about the 1983-84 implementation.

- In October 1983, the director of instruction visited a number of the schools to assess the principals' training of teachers. The information was used to help principals plan for a second scheduled day of teacher training and to make additional decisions about the 1983-84 implementation.

- Later in October, central office staff and BSC linkers visited principals, and in some cases a few teachers, to obtain reactions to training in both managing instructional content and managing instructional design. District and BSC staff used the information to plan some of the principal seminars and formulate decisions about district implementation requirements.

Most teachers agreed that their own role as instructional leader changed somewhat as a result of the program. The changes most frequently cited were: increased awareness and management of student engaged time, increased attention to content coverage, and completion of year-long instructional plans. The director of instruction, curriculum supervisors, and principals all agreed with teachers' assessments. They also emphasized teachers' increased awareness of the critical classroom variables, and teachers' improved year-long instructional planning and classroom management.

Each spring, the BSC linker carefully prepared a summary of the interview results and developed some tentative implications for the district's future planning. The report was shared with the superintendent and director of instruction, and ensuing discussions focused on how the district could use the information to improve its instructional leadership. In some cases the superintendent volunteered some action prior to any BSC suggestion. For example, the 1983 interview data and the district's own discussions with the field test year principals, prompted the superintendent to assign the director of instruction responsibility for the ADL implementation. In other instances, BSC suggested some district action. At times these suggestions were readily accepted and acted on (e.g., establishing a timeline for key implementation events); at other times the suggestions were accepted but action was delayed (e.g., preparation of school year planning guides for all adopted reading texts). A principal seminar at the end of each school year included an informal presentation of interview data that were then used by the principals in developing goals and implementation suggestions for the following year.

During the three years, the linkers shared with district personnel how information gained from conferences, discussions, or observations could be used to influence planning or seminar agendas. For example, during a number of the 1983-84 seminars, it became obvious to the BSC linkers that principals were not using the "Instructional Events Checklist" during classroom observations. BSC linkers and district office staff then planned a number of seminars to re explain and provide practice with the form.

Student achievement. The primary goal of ADL is improvement of student achievement. Throughout the implementation, the BSC linkers

attempted to keep the participants focused on the extent to which this benefit was being attained. Despite the lack of public or overt district press for improved achievement, the superintendent always considered student achievement to be a crucial outcome and consistently directed central office staff to prepare presentations on student achievement for the school board.

Each year, BSC collected grade level achievement test data for each elementary school. Although BSC staff analyzed data to relate achievement at the building level to the degree of implementation at the building level, only district level data are presented in this report. Scores from 1980-84 are presented in Table 1 as Normal Curve Equivalents (NCEs), along with gains from 1980-81, 1981-82, 1982-83, and 1983-84. (See Appendix C for a discussion of the significance of achievement gains.)

In the two years before the district first undertook implementation of ADL, students at most grade levels were scoring around the national average (50 NCEs) in reading and math. Some grades registered moderate gains from 1980 to 1981. In reading, the gains were, for the most part, balanced by decreases. The average change in reading was +0.7 NCEs; the average change in math was +1.8 NCEs. Changes ranged from -1.6 to +2.6 NCEs in reading, and from 0.0 to +4.3 NCEs in math.

The district decided to implement certain elements of ADL in five elementary schools in the 1981-82 school year. After one year of implementation, test results showed the continuation of the positive gains in math achievement, but again, the losses in reading seemed to balance out the gains. The average gain in reading was +0.3 NCEs, and in math, +2.3 NCEs. Changes ranged from -1.6 to +2.6 NCEs in reading and from 0.0 to +4.0 NCEs

Table 1

Student Achievement Results: 1980-1984
Pennsylvania School District

READING

Grade	Scores[a]					Gains/Losses			
	1980	1981	1982[b]	1983[c]	1984	80-81	81-82	82-83	83-84
1	48.7	51.1	51.6	55.9	58.7	+2.4	+0.5	+4.3	+2.8
2	47.9	50.5	51.6	55.3	58.3	+2.6	+1.1	+3.7	+3.0
3	51.6	50.0	52.6	54.9	59.3	-1.6	+2.6	+2.3	+4.4
4	51.1	50.5	49.5	54.2	58.0	-0.6	-1.0	+4.7	+3.8
5	54.2	54.8	53.2	59.9	61.1	+0.6	-1.6	+6.7	+1.2
Mean	50.7	51.4	51.7	56.0	59.1	+0.7	+0.3	+4.3	+3.1

MATHEMATICS

Grade	Scores[a]					Gains/Losses			
	1980	1981	1982[b]	1983[c]	1984	80-81	81-82	82-83	83-84
1	52.6	55.3	59.3	64.9	62.3	+2.7	+4.0	+5.6	-2.6
2	52.1	56.4	58.7	62.3	63.8	+4.3	+2.3	+3.6	+1.5
3	52.6	53.2	57.0	58.1	62.6	+0.6	+3.8	+1.1	+4.5
4	50.5	50.5	52.1	55.9	59.8	0	+1.6	+3.8	+3.9
5	55.9	57.5	57.5	59.9	68.7	+1.6	0	+2.4	+8.8
Mean	52.7	54.6	56.9	60.2	64.4	+1.8	+2.3	+3.3	+3.2

[a]Scores represent Science Research Associate (SRA) test results as NCEs.

[b]ADL was first implemented in the district in the 1981-82 school year, but in only five of the seventeen elementary schools.

[c]ADL implemented in all 17 elementary schools.

in math. It should be remembered that only 5 of the 17 elementary schools implemented elements of the program. This level of effort seemed to exert little impact on achievement for the district as a whole. However, an analysis of achievement results of the 5 schools in 1981-82 (Biester et al., 1983) shows that the average gain in reading for the 5 schools (+1 NCEs) was higher than the average for all 17 elementary schools. Similarly, the average gain in math for the 5 schools (+6 NCEs) was greater than that of the 17. For the five schools, school level gains in reading ranged from -2 to +5 NCEs, and in math from 0 to +12 NCEs. The greater gains in math are consistent with the greater level of program implementation (especially content management) in math. And, BSC's analysis also showed that the magnitude of the increases varied with the degree of implementation at the school level.

Over the course of 1982-83, BSC staff trained all 17 elementary school principals in ADL and planned with them for the next year's implementation. Interviews conducted in 1983 indicated that many of these principals put aspects of the program (especially attention to coverage) into practice in 1982-83. In the spring of 1983, all grades scored substantially above the national average in reading and math. The gains in reading achievement increased substantially, with an average change of +4.3 NCEs. The general upward trend in math achievement gains intensified at most grade levels, with an average change of +3.3 NCEs. No grades registered losses. Changes in reading achievement ranged from +2.3 to +6.7 NCEs; changes in math achievement ranged from +1.1 to +5.6 NCEs. The actual cause of these improvements in achievement is unknown. However, it can be hypothesized that the principals' training in ADL had a positive impact on instructional leadership (see previous section) and this resulted in achievement gains.

In 1983-84, ADL was implemented in all 17 elementary schools. Teachers were trained early in the year, and principals worked with them through several rounds of observations and conferences. Student achievement from the spring of 1984 showed a continuation of the positive trends. Achievement in math increased at about the same rate as in the previous year. The average change was +3.2 NCEs, with grade level changes ranging from -2.6 to +8.8 NCEs. Achievement in reading also increased but at a lower rate of increase than the previous year. The average change was +3.1 NCEs, with grade level changes ranging from +1.2 to +4.4 NCEs.

In brief, student achievement in the Pennsylvania district was around the national average and increasing slightly, before implementation of ADL. Partial implementation of the program in approximately one-third of the district's elementary schools seemed to have a positive influence on achievement in those schools. Achievement gains in the five schools were greater in math than in reading, which was consistent with the greater emphasis on content management in math. Student in the district began to improve noticeably in the 1982-83 school year.

Each summer BSC linkers shared the results of their analysis of student achievement data and its relationship to implementation with the superintendent. Although it was clear that the superintendent had solicited principal and central office opinion about the program, his decisions regarding implementation seemed to be strongly influenced by student achievement outcomes. The superintendent always kept the school board informed about implementation and achievement. He requested copies of BSC's report on the Pennsylvania district field test and on subsequent years' analyses of achievement test results for the board.

The last principal seminar of each school year typically included time for principals to compare their last year's student achievement scores, the present year's scores, and the goals they had set for the present year. Principals were presented data in a form which allowed them to compare grade level data (i.e., this year's first grade vs. last year's first grade) and also the growth of student cohorts (i.e., this year's second grade vs. last year's first grade). The relationship between implementation and achievement was also discussed. Most principals seemed to value these discussions. A few raised the question--how long can we be expected to continue improving?

Technical Assistance and Institutionalization

Most theories which describe the stages of an innovative process (Berman & McLaughlin, 1975; Hage & Aiken, 1970; Rosenblum & Louis, 1981; Yin & Quick, 1978; Zaltman, Duncan, & Holbek, 1973) agree on a final stage which follows implementation. This stage is characterized by continuation, routinization, or institutionalization of the innovation. Both BSC and the districts adopted specific strategies to build ADL practices into district routines.

The early signs of institutionalization in the Pennsylvania district are mixed. Many of the positive signs are the result of the initiative of several individuals, and thus may disappear if the individual advocates were to leave the district.

In addition to the design features of ADL that were intended to enhance institutionalization (e.g., relatively low cost, development of local capacity, no provision for funding to the district), linkers pursued

other strategies to sustain implementation and foster institutionalization.

One strategy was to keep the superintendent up-to-date on the status of implementation:

- In 1981-82 and 1982-83, the linker sent monthly letters to the superintendent to inform him of implementation concerns and progress. This strategy was not employed in the 1983-84 school year as the linker felt that the new director of instruction would assume this responsibility. However, the director of instruction was distracted by other assignments and his communication with the superintendent did not include any long-range planning. Nothing seems to substitute for direct communication with the superintendent.

A second strategy was to increase district staff's commitment to and understanding of instructional leadership:

- The superintendent and director of instruction were frequently counseled and provided literature on practices that lead to effective instruction (e.g., use of curriculum mastery tests). This strategy was sometimes successful, but the changes in behavior were gradual.

Another strategy was to encourage processes important to institutionalization (e.g., the incorporation of new procedures into policy and routine):

- The linker continually sought to tie the leadership plan to other district initiatives and interests. For example, each year the school board adopted a set of goals. The linker always pointed out to the superintendent which goals could be supported by the leadership plan. This strategy seemed helpful; it usually evoked the superintendent's vocal support of ADL and the subsequent participation of central office staff.

- Whenever possible, the linker informed other central office personnel of the goals of ADL and the leadership plan. This seemed particularly important in the Pennsylvania district as communication between divisions (e.g., testing and curriculum) was minimal.

- The linker gradually turned over responsibility for the logistical and substantive planning to central office staff.

- The linker encouraged the district to clarify, in writing, expectations for principals (e.g., provide a timeline for critical events).

- The linker counseled the district to avoid any duplication of effort. For example, the linker persuaded the district to substitute a set of achievement data useful to teachers in planning for a set the district received that was not useful to teachers.

- The linker demonstrated to the superintendent how formative evaluation could be carried out using achievement test results and interview data from central office staff, principal, and teachers. The linker also suggested how this information could be used in future planning.

The district also pursued some of its own strategies for facilitating or spreading various elements of the improvement effort. For example:

- In 1983, the district reduced the number of approved reading basals from fifteen to four, thus making alignment and monitoring more feasible.

- The district extended training to staff only peripherally involved in the implementation. For example, in 1981, the superintendent included the four resource teachers assigned to plan the district's new middle school program in the principals' training sessions and seminars. He felt that the training would be helpful to them in their design work.

Other strategies had the effect of placing responsibility or authority for implementation within the district's permanent organizational structure. For example:

- In the fall of 1983, the superintendent placed responsibility for the ADL effort with the director of instruction.

- In 1981-82 and 1983-84, the district developed and required principals to submit monthly reports on the number of observations and conferences conducted.

Some strategies both spread the approach and placed it into the organization's authority structure. One example is the superintendent's successful push to have the resource teacher position in the middle schools reclassified from a non-supervisory position to a supervisory position. This provided the additional supervisory personnel needed for the relatively large middle school (approximately 65 teachers), and also assured that the leadership carried the necessary authority.

Among the more discouraging signs concerning institutionalization is the low level of implementation of superintendent/principal conferences and differentiated inservice. Another sign which does not bode well for institutionalization is the wavering of the district leadership's attention to implementation. Finally, the lack of proactive action and commitment on the part of a few district leaders is also discouraging.

There are promising signs of institutionalization. One is the spread of ADL elements to subject areas other than reading and math and to grade levels other than the elementary (K-5) level:

- One elementary principal reported conducting principal/ teacher conferences that address the four critical student variables in the areas of science and social studies, as well as in math and reading/language arts.
- One middle school principal (formerly the 1981-82 district/ BSC liaison) reported successfully helping some of his weaker teachers plan for the year by having them attend to content coverage, prior learning, and the days needed to cover topics.
- The current district math and science curriculum specialist required science textbook companies to submit content matches between their texts and the district's achievement test. She also verified the accuracy of these matches prior to having a committee select a series for districtwide use.
- The same specialist helped teachers piloting the selected science text plan by allocating days in the school year to text topics. She is now developing additional information to be included in guides for all teachers' year-long planning.
- This curriculum specialist also required senior high math and science chairpersons to document the alignment of their departmental final exams with the course objectives.

Additional promising signs are the inclusion of elements of the leadership plan in district policy documents and the incorporation of aspects of the plan in routine district operations:

- In response to a suggestion from the Middle States Association, the district is preparing a monitoring system for the reading program. The system specifies the responsibilities of central office staff, principals, reading specialists, and teachers and has been integrated with the planning and monitoring requirements of the ADL leadership plan. BSC staff were invited to review the plan and ensure its compatibility with ongoing work in ADL.

- The district presented principals with written expectations for conferences and observations in the 1983-84 school year.

- During a 1983-84 inservice workshop, math teachers at one of the four middle schools were required to develop a "curriculum map." (Curriculum maps are a local name for year-long planning guides that attend to coverage and prior learning.)

- During the 1983-84 school year, the math/science curriculum specialist assisted all 7th grade math teachers in differentiating between essential and enrichment textbook objectives. Teachers were also given a recommended pacing guide for instruction in the essential skills. This guide was developed to assure attention to coverage of tested skills.

The New Jersey District

The New Jersey district is a small urban district. In 1981, the district served 4,800 students (of whom 89 percent were Black or Hispanic) and included eight elementary schools (K-6 and in some cases K-7), one middle school (grades 7 and 8), and one high school (grades 9-12). The district cooperated with RBS in developing ADL for two and a half years prior to the 1981-82 field test. This work involved the principals and a few teachers in three of the district's eight elementary schools, and focused on the development of training materials for the management of classroom variables. An elementary supervisor and two elementary resource teachers provided support from the central office.

In the spring of 1981, after having seven superintendents in the previous ten years, the district appointed a new superintendent. Low

student achievement on the standardized achievement test and state minimal competency test had resulted in media and school board press for improvement. The new superintendent reviewed all district projects, and found the three principals who had implemented portions of ADL to be very enthusiastic about the program's impact. In an effort to reverse the pattern of low achievement, the new superintendent agreed to district participation in the 1981-82 field test of ADL as the focus of a districtwide improvement plan. Implementation included all eight elementary schools and the single middle school. Key central office staff involved in the implementation included the superintendent, the assistant superintendent and curriculum supervisors from the Department of Instruction (DOI).

The following year (1982-83), the structure of most schools changed (i.e., one elementary school closed, the middle school became a K-8 elementary school, and the remaining elementary schools added either a seventh or eighth grade); however, administration support of ADL continued. Because of the active support of district leadership it was possible for the linker to shift attention to the high school. Overall, the district actively maintained the program and remained in close contact with BSC.

In 1983-84, district leaders assumed that ADL practices were firmly embedded in district routines and therefore would continue. They eased the supervision of principals and focused on other areas such as ADL implementation at the high school, and on bringing in other programs districtwide. Principals seemed to interpret this shift of emphasis as freedom to continue or discontinue ADL practices as they saw fit. The overall level of implementation decreased, although there was variation from school to school.

Technical Assistance to Build Capacity

The following discussion focuses on technical assistance provided by BSC and district staff relative to the classroom variables and the four supporting program elements described in chapter 3. Each section describes the strategies employed to foster and sustain implementation, and the extent to which these strategies were successful. Interview and questionnaire data related to implementation of four of these five areas are summarized in Table B-2 of Appendix B. Although in many cases strategies involved more than one program element, this framework facilitates a logical discussion. Also, in most cases the discussions of BSC technical assistance are shorter for 1982-83 and 1983-84 than for the field test year. During these years, the BSC linker was proactive on fewer issues as a result of the district leadership assuming increased responsibility for the program. The focus of the linker's assistance continued to be on the role of the superintendent, while much less time was spent observing principal and teacher performance during these years.

Attention to classroom variables. As discussed in chapter 2, ADL gives special attention to four classroom variables which research has shown are highly related to student achievement. They are: (1) prior learning; (2) student engaged time; (3) coverage of criterion content; and (4) academic performance. The New Jersey district attended to all four classroom variables during the three-year period, and related technical assistance was provided by both BSC and district staff. The BSC linker provided direct support to central office staff, including the superintendent, the assistant superintendent, and members of the district office's Department of Instruction (DOI) through informal and formal meetings, training sessions, and seminars.

During the field test year, BSC technical assistance was proactive, and focused on major implementation decisions. For example, in this district, planning for implementation of content management procedures occurred after content training for administrators was completed. This was due to the absence of necessary prerequisite materials and the lack of planning time. DOI staff were given primary responsibility for developing and monitoring the implementation of the articulated curriculum for grades K through 12, and were supervised by the assistant superintendent. To carry out this mission, the BSC, DOI staff, and the assistant superintendent developed a format for instructional planning, called a Quarterly Topic Plan. The form was analogous to BSC's Unit Topic Plan just as the district's curriculum mapping guide was an adaptation of BSC's School Year Planning Guide. It required teachers to record prior learning strengths and weaknesses, dates of instruction, and student success rate, as well as the sequence of topics to be introduced on a quarterly, rather than yearly, basis. The linker, in seminars with DOI, clarified the need for teacher accountability in planning, explained procedures for collecting and monitoring content variable data, and responded to district plans and concerns.

The BSC linker later assisted the DOI in planning and developing a two-day teacher training session on content management. The training was to introduce the guides, to demonstrate teachers' use of the guides in planning and instruction, and to explain the principal's role in monitoring teacher use of the planning guides. Interview data indicated that planned principal and teacher activities related to the planning guides were performed by all district staff, i.e., all principals monitored teacher

instructional plans and teachers attended to the three content variables. However, teachers reported that they were more successful in attending to prior learning and coverage than to academic performance. This was reasonable, as BSC had not developed formal procedures for assessing success or mastery at that time, and the superintendent's press was for content coverage. Interview data also indicated that all principals conducted classroom observations and all teachers attended to student engaged time.

Monthly meetings of the BSC linker, the assistant superintendent, and DOI staff during the field test year dealt with ways the DOI could help principals improve their monitoring of teacher planning and instruction. During these meetings, the BSC linker assisted in planning workshops for principals. Topics for the workshops were suggested by DOI experiences in schools. For example, the linker and assistant superintendent developed a workshop in response to DOI reports of principal and teacher confusion about recording and monitoring student daily success. The linker also developed simulations and role plays to be used with principals and teachers, and presentations on particular aspects of research. One example of a research-based presentation was on the Joyce and Showers (1980) model of inservice training. Overall, observations of the BSC linker and feedback from the district indicated that BSC assistance supplied to the DOI and DOI assistance supplied, in turn, to principals and teachers were key elements in facilitating this first year implementation. The significant impact of the planning guide on instructional planning and monitoring, confirmed by interview data, suggests that BSC technical assistance in this area was effective.

During the field test year, the linker had ongoing communication with the superintendent, some of which specifically related to the classroom variables (also see the following section, principal seminars). In one instance, the linker assisted the superintendent in responding to teacher resistance to using the planning guides. Teachers objected to the additional time needed to prepare instructional plans using the new format. The linker planned two responses with the superintendent. First, teachers in one building were given permission to share the burden of planning by preparing multiple copies of the forms for distribution to teachers at a grade level. On reflection, the district agreed that the duplication of teacher effort was unnecessary, and assumed responsibility for pre-printing the forms. Second, to increase awareness and communication the superintendent decided to meet regularly with teacher representatives to clarify the new processes and respond to concerns.

The linker's strategy in terms of lines of communication with the district was to deal mainly with central office staff. Direct interaction with principals occurred mainly during principal seminars, BSC interviews, and school visits for BSC data collection. During the linker's visit to schools, concerns were usually raised by principals. The linker would then discuss the issue with the superintendent, who would follow-up with a response, which in some cases was a topic for a seminar. For example, during one school visit it became clear that the concept of overlap was not understood. The principal informed the linker that teachers would not be teaching a test-related content area in mathematics (e.g., fractions) until after the testing date. After finding that other principals also had some difficulty with the concept of overlap, the linker made a presentation on the topic at the next seminar.

The major district strategy for providing technical assistance to principals was to pair each principal with a DOI staff member, thereby moving curriculum supervisors closer to daily activities in schools and giving principals a readily accessible resource. Curriculum supervisors trained new teachers and conducted workshops, observed and conferenced with teachers, and assisted principals with instructional planning and monitoring. Approximately two-thirds of the teachers interviewed and all principals reported receiving DOI assistance. Only one principal and a few teachers reported that this assistance was not helpful. This district strategy of pairing principals with DOI staff appears to have been very successful.

During the second and third years, the linker spent less time providing technical assistance related to the classroom variables. Pursuant to BSC's strategy of transferring leadership to the district, the linker became less proactive, but continued to be responsive to specific concerns and problems. Many of these concerns were relayed to the linker through the assistant superintendent and the DOI. Examples of such concerns were: what score report format best provides prior learning data; and how to standardize the definition of student success. The linker also continued to clarify, for the superintendent and assistant superintendent, issues and the consequences of policy changes, e.g., the number of classroom observations, and the necessity of classroom time logs. On occasion, the linker assisted the superintendent by providing him copies of significant research articles and reports. The DOI continued to assist principals and teachers with specific issues.

The linker's assistance was usually successful unless suggestions were contrary to district routine. In one case the linker suggested that the

district have their California Achievement Test (CAT) data reorganized by incoming classes. The district decided that this policy change would not be worth the effort, considering the high student turnover. Instead, the district asked teachers to use the results of a diagnostic/prescriptive test to assess students' prior learning. After two years, it became clear that these test results could not be processed in time for first quarter planning. The district then agreed to reorganize the CAT data.

Defining success and mastery continued to be district problems. Interview data from 1983-84 showed disagreement among principals and teachers on definitions, the use of planned standards, and awareness of district success and mastery goals. As a result of BSC's feedback to the superintendent on interview data, he is currently aware of the need to restate district policy concerning standards for student mastery, coverage, and planning.

Interview data from 1982-83 and 1983-84 show that the classroom variables continued to receive attention in the New Jersey district. In both years, principals reported observing all teachers using the engagement rate form for an average of three rounds of observations. All teachers indicated they attended to time management. However, the number of observations they reported is suspiciously high, suggesting that teachers confused "scans" with rounds of observations, and ADL with non-ADL observations. All teachers interviewed also reported attending to the content variables during 1982-83 and 1983-84, and all principals agreed. Teachers used the new planning format, which had coverage built in, for planning daily and weekly lessons within a marking period. However, two principals stated that teachers used the "lesson plan" format rather than the new

planning format. Prior learning was analyzed from the results of the CAT and commercial diagnostic/prescriptive test administered at the beginning of each school year. Some teachers also used the individual student skills array in determining prior learning.

Overall, BSC technical assistance strategies facilitated and reinforced the district's attention to the four classroom variables, particularly during the field test year. As expected, the number of requests for linker assistance during the second and third years decreased. In addition, district strategies of assigning content management activities to the DOI and pairing principals with DOI staff appeared to be highly successful.

Principal seminars. ADL calls for central office staff to conduct regularly scheduled leadership seminars for principals. Principal seminars were intended as problem-solving and planning sessions that would help maintain improvement of instruction as a priority and improve and sustain leadership practices.

Following the district's agreement to a full-scale implementation in the field test year, BSC developed a proposal listing implementation activities and a suggested timeline. Seminars were to be 90-minute sessions, occurring once or twice a month as part of the district's regular principal meetings.

The BSC linker planned and led all seminars during the field test year. The linker selected seminar topics, which generally provided skill training for impending implementation events, and met with the superintendent prior to each session to review the agenda and obtain any recommendations and approval. All principals, the superintendent, the assistant superintendent, and the assistant to the superintendent attended the

seminars. Curriculum supervisors attended the first two seminars but, in response to principal objections, were not invited to other sessions.

Seminar topics included: preparing principals to conduct content and time training; participatory supervision (conferences and observations); coverage; and a review of classroom coding.

Seminars were also an occasion for principals to express implementation concerns. The superintendent often responded to those concerns at subsequent seminars. In the interim, the superintendent discussed the issues with other central office staff or his administrative council and the BSC linker. For example, the principals requested during a seminar that the district not mandate use of the time logs. The forms were viewed as redundant with teachers' weekly lesson plans, and teachers were suspected of inflating allocated times in order to increase student engaged time. The superintendent decided to enforce the scheduled time minimums but re-evaluate the need for the time logs. He communicated this decision to principals during a subsequent seminar.

During interviews, all principals reported attending these required seminars. The superintendent indicated that principal seminars reflected a change in district policy. That is, the view of the principal as instructional leader replaced the view of the principal as building manager. The assistant superintendent indicated, during informal conversations with the linker, that having the linker lead the seminars not only provided needed technical assistance to principals, but also gave the central office staff opportunities to observe principals, to better understand and discuss principals' points of view, and to increase their own understanding of instructional issues.

The proposal for the 1982-83 school year did not include a specific timeline for implementation events (including seminars) or BSC's role in the seminars. BSC was to assist the central office in developing principal leadership upon district request. It was hoped that this strategy would foster district independence. The first year of implementation had been successful and the district planned to continue the implementation at the elementary level and allow the linker to focus on expanding the program to the district's high school.

BSC received three requests for presentations during the 1982-83 school year, two for principal seminars and one for a DOI seminar. The BSC linker conducted a half-day session during administrative training in the summer of 1982. The session was a review of the ADL model and procedures, and focused on principal leadership functions and procedures for collecting and analyzing data. Later in the school year, the assistant superintendent invited the BSC's director to speak to the DOI on the classroom variables, and to give special attention to coverage and the relationship between time and coverage. As a result of an enthusiastic reception from the DOI, the superintendent suggested that a similar presentation be given during a principal seminar. The BSC director complied with this request.

It is unclear to what extent principal seminars continued throughout the year without BSC leadership. During an interview, the superintendent indicated that principals participated in a six-day inservice during the summer of 1982, and in monthly principal seminars. Session leaders included himself, the assistant superintendent, and consultants; topics were both specific to ADL, such as content overlap, and included other programs such as one emphasizing teaching styles and strategies. The superintendent

indicated that topics were suggested by state mandates, principal feedback, principals' yearly evaluations, and superintendent/principal conferences. Principals indicated that they attended monthly seminars but BSC did not ask what transpired during seminars.

The 1983-84 proposal was similar to the previous year's proposal in that it included only a general timeline for implementation activities. Again, BSC's technical assistance for elementary school principals (including planning and developing seminars) was to be provided upon district request. The BSC linker was invited to make three presentations during the school year. As part of a seminar held early in the year, the superintendent asked the linker to focus on the relationship between the new district effort, the teaching styles and strategies program, and the supervisory aspects of ADL. Unfortunately, the linker did not have sufficient notice to obtain information concerning the new program. Principals and district administrators could not provide the needed information either before or during the seminar. Consequently, the linker simply reviewed ADL participatory supervision.

Late in the fall, the assistant superintendent was concerned that principals' implementation levels had dropped and requested a principal seminar on participatory supervision. In the seminar, the linker discussed classroom observations and learning events using a newly developed time management videotape. During this session, it became clear that some principals had forgotten some basic skills or concepts, such as the definitions of engaged and unengaged behaviors. Wide variation in participatory supervision procedures was also apparent. As a result, the assistant superintendent and the linker planned to conduct a joint seminar on

supervision during a specially called principals meeting. The BSC linker conducted this seminar without assistance, as the assistant superintendent was ill. During the session, the linker and principals worked through a case study exercise with sample data.

Again, BSC was not aware of the extent to which principal seminars continued in 1983-84 without BSC leadership. During an interview, the superintendent reported that principals were provided with a six-day summer session and monthly seminars conducted by central office staff or the linker. He indicated the topics were suggested by the district's end-of-year needs assessment and by principal and DOI requests. A little over half of the principals indicated that four or five ADL elements (i.e., coverage, prior learning, academic performance, time management, participatory supervision) were major parts of principal meetings, while the remaining principals felt only two or three of these issues were covered. The frequency or depth of the discussions is unclear.

Principal seminars during the field test year would probably have not occurred or remained focused on ADL without BSC assistance. The seminars were successful for several reasons: they augmented initial training by providing additional time to clarify and discuss issues; they provided an opportunity to develop and revise procedures and to identify and address common problems across schools; and, as part of the existing principal meetings attended by the superintendent, they indicated the district's strong support of the program. The superintendent and assistant superintendent planned and led most seminars, without linker assistance, during the 1982-83 and 1983-84 school years. Although it's difficult to assess these sessions, it is clear that principals were aware of a continued but

decreased district emphasis on ADL-related issues: leadership, instruction, achievement.

Principal/teacher conferences. As discussed in chapter 3, regularly scheduled principal/teacher conferences provide an opportunity for principal and teacher to review data on the classroom variables and develop plans for action related to identified improvement needs. BSC suggested that these conferences be held following each round of observations, usually three times a year.

Early in the field test year, the superintendent and assistant superintendent became concerned that principals would not follow through with the initial training they had received. They asked BSC for a procedure to hold principals accountable for implementing their training in their respective schools. In response to district leadership's initial request, BSC invited the superintendent and assistant superintendent to RBS to propose a principal/teacher conference form, and to review the ADL leadership plan. This initial conference form was a four-page document of questions on the status of each of the focus variables.

During the field test year, BSC technical assistance regarding principal/teacher conferences focused on the use of the conference form to collect data and select improvement strategies. As mentioned in the previous section (principal seminars), the linker discussed the form during principal seminars, and worked with principals using simulated conference form data. The linker discovered that most principals lacked the interpersonal skills required for effective conferencing. The district printed the conference forms and distributed them to principals to use in November/December following the first round of classroom observations.

Teachers responded negatively to the amount of time required to collect and record conference form data (which claimed part of their preparation time), and feared the data were being used in their professional evaluations. These concerns were conveyed to the local and state level teacher associations. In response, the superintendent requested that the linker spend more time in seminars dealing with the principal's role in conferences and the intended outcomes. The superintendent also suggested that the linker (while collecting the forms) and the DOI obtain principal and teacher feedback to help pinpoint areas of difficulty. The linker and DOI found that: principals were having difficulty bringing conferences to successful closure, i.e., targeting classroom improvement strategies; there was confusion as to how the conferences differed from the evaluation system used to determine teacher tenure and salary increments; and there was wide variation in principals' ability to communicate and interpret data with teachers. The superintendent responded to these reports during a principal seminar by strongly emphasizing the importance of conferences as part of the principal's leadership role and as a formative evaluation of instructional improvement and classroom leadership. More specific issues and procedures were addressed by the linker in subsequent seminars.

Most teachers interviewed during the field test year reported that principals observed their classes approximately four times and followed-up with an average of four conferences. The large range in the number of conferences (see Table B-2, Appendix B) reported (0-10) suggests that some teachers may have confused ADL and non-ADL conferences, or formal and informal conferences. Most principals indicated they conducted three conferences in accordance with district guidelines. A large majority of

principals and teachers indicated that they welcomed the opportunity to talk together, on a one-to-one basis, about specific aspects of classroom instruction.

The following year, 1982-83, although the number of required conferences did not change (three), principals were confused as to which version of the conference form was official, i.e., the original four-page form, or an unofficial shortened version which the linker developed and shared with the district during a training session. Although the shorter form was not adequate for the intended outcomes of conferences, the district approved both forms. The superintendent wanted to comply with principals' request for a shorter form--a minor concession in return for adherence to the larger goal. Linker assistance with conferences was provided to principals during administrative training in the summer of 1982, and later in the year during a principal seminar. BSC did not collect conference form data during the 1982-83 school year. Following the program model, the superintendent was to monitor principals' conferencing during superintendent/principal conferences.

During interviews, all principals indicated that they conducted a minimum of three conferences with all teachers during the 1982-83 school year. The mean number of conferences reported by teachers was four. Again, the range in the reported number of conferences suggests that some teachers confused ADL and non-ADL conferences, or that some teachers needed and were provided with additional support. All teachers said they reviewed classroom data and discussed improvement opportunities during conferences. Likewise, all principals used one of the versions of the principal/teacher conference form. Thus, although conferences continued as required, the quality of conferences is unknown.

At the beginning of the 1983-84 school year, BSC officially shortened the conference form from four to two pages. The linker presented this revised form to the superintendent who duplicated the form and distributed it to principals during a principal seminar. Again, the linker provided technical assistance related to conferences during three principal seminars.

During the 1983-84 school year, all principals reported having three conferences with all teachers. Although most teachers reported having only two conferences, the teacher interviews were administered in March 1984 and additional conferences may have been held that year. During interviews, all principals, and teachers from all but one school reported using the conference form and discussing all classroom variables. The one exception was a principal who used the engagement rate form and focused on time management. Many principals and teachers also reported having informal meetings and discussions concerning the program, classroom data, or instructional improvement issues. As a result of conferences, a little more than half of the teachers interviewed felt that they were helped with instructing students, exactly half of the teachers felt that they were helped with managing the classroom, and a little less than half of the teachers interviewed felt that they were helped with their planning.

A major vehicle for participatory supervision by principals is the principal/teacher conference. It seems clear that conferences would not have occurred without BSC's extensive technical assistance during the first year of implementation. District requirements and support were also key elements in implementing and sustaining conferences. Throughout the three-year period, DOI assisted principals with conferencing, both directly (i.e., attending or leading conferences) and indirectly (i.e., assisting

with data collection or with implementing outcome strategies). District actions reflected central office leadership's belief in principal/teacher conferences as a valuable means for monitoring principal implementation.

Superintendent/principal conferences. The ADL leadership plan calls for the superintendent to conduct formal conferences with each principal to review the outcomes of conferences with teachers, and to discuss improvement opportunities. Through individual principal conferences, the superintendent gains perspective on implementation both within and across schools. BSC suggests that the superintendent meet with each principal at least two times during the school year.

BSC's proposal for implementation in the New Jersey district for the 1981-82 school year specified that the superintendent would conduct two rounds of superintendent/principal conferences. Although the superintendent had conducted conferences with principals in the previous year, the focus of the conference was new. To assist the superintendent in conducting ADL conferences, BSC staff met with the superintendent in October to review the purpose of the conferences and introduce the superintendent/principal conference form. At that time, the form consisted of two pages of general questions summarizing building activities related to implementation. The superintendent agreed to use the form.

Additional technical assistance specifically related to the superintendent's conferencing was minimal. However, the linker adopted other more general strategies which helped the superintendent focus on effective principal's behavior. For example, the linker recommended journal articles on supervision and school effectiveness research and suggested ways the superintendent might help principals deal with their own or their teachers'

difficulties. The superintendent presented the conference form to principals during a principal seminar, and briefly described the conference procedure and a suggested timeline (i.e., mid-year and end-of-year.)

During this first year of implementation, the superintendent took two important steps to incorporate superintendent/principal conferences into district routine and to assume district ownership of the conferences. The first step was to combine the program's end-of-year conference with the state mandated principal evaluation. The principals' union, unlike the teachers' union, did not object to this procedure. Second, the superintendent added a self-evaluation checklist to ADL's Principals Handbook. The checklist was to be completed by each principal prior to the end-of-year conference. Although the checklist did not directly relate to the classroom variables, it was an attempt by the superintendent to assume ownership of BSC-developed materials.

As planned, two conferences were conducted with each of the nine elementary school principals. Principals reported discussing all four classroom variables, although interviews did not ask for an assessment of conferences. The superintendent reported that the conferences were beneficial both in helping him focus his own ideas on instruction and in assuring that principals were constantly aware of the instructional issues addressed by the improvement program. Informally, the superintendent indicated to the linker that conferences also provided opportunity to follow up on principal and teacher problems, such as earlier teacher complaints about their participation in conferences. Although he did use the conference form, the superintendent indicated to the linker on several occasions that the questions on the form were too general to facilitate

discussion of the classroom variables. For example, in some cases principals, in an effort to be positive, described their buildings as "problem free," thus cutting off any opportunity for discussion.

The following year, 1982-83, the main technical assistance provided by the linker was the revision of the conference form. The new form, presented to the superintendent in November 1982, asked about specific levels of each classroom variable to be summarized across teachers. In order to secure principal and teacher approval for the revised conference form, the superintendent modified the form so that it represented grade levels, rather than individual classrooms. The form was distributed to principals by the superintendent during a principal seminar. The superintendent also gave principals a checklist of materials needed for the conference.

During an interview, the superintendent reported conducting at least two conferences with all principals in 1982-83, and in two cases, two follow-up conferences were needed and conducted. He reported using the conference form to discuss the four classroom variables for reading and mathematics, along with principal's conferences with teachers. He reviewed individual conference forms and improvement plans. The majority of principals reported having two conferences, one principal reported four, and one reported having one conference. All principals completed the school summary section of the conference form although three principals reported dealing mainly with student engaged time. Only two principals indicated conferences were helpful; one principal felt they helped with training and supervising teachers and the other principal indicated planning with and supervising teachers as areas of benefit.

During the 1983-84 school year, the district continued to require two superintendent/principal conferences and use the district's modification of BSC's conference form. Although the end-of-year conference continued to be tied to the principals' evaluation, this year the earlier conference was tied to the state's spring monitoring of basic skills achievement and other indicators of district effectiveness. During principal interviews in May 1984, most principals reported having had only one conference with the superintendent, although another was planned. One principal reported having two, and two principals reported having three conferences. One principal did not use the conference form. However, all principals discussed the four classroom variables during the conference. Although only three principals felt that conferences provided specific help with their leadership functions, most principals indicated that the conferences demonstrated the superintendent's commitment to the program and his concern and support for principal performance.

Throughout the three-year period, the superintendent conducted principal conferences in accordance with BSC's proposal. BSC's technical assistance in developing the conference form provided the needed structure for the conferences. Although conferences provided an opportunity for the superintendent to monitor principals' efforts in helping teachers to improve instruction, they seemed to also serve a more important function; that is, the demonstration of superintendent interest and commitment. This commitment was also reflected in the superintendent's actions to incorporate conferences into district routines and to adapt materials to better meet district needs. However, it is possible that the modification of the conference form which the superintendent perceived as necessary for

principal and teacher approval (i.e., data summary by grade level) masked declines in levels of achievement and classroom process variables in individual classrooms.

Differentiated inservice. One of ADL's overall goals is to increase the district's capacity for improvement and reform. Differentiated inservice is a means to achieve that goal. The leadership plan suggests that the central office provide small or large group inservice based on needs identified in conferences, seminars, and informal discussions.

The superintendent in the New Jersey district supported principal inservice as a means to promote and support instructional improvement. Prior to the field test year, the central office had scheduled principal inservice sessions which were developed and presented by non-district consultants. During the field test year, these sessions were principal seminars and focused on ADL activities.

In addition to inservice provided by the linker to all principals during principal seminars, DOI staff were assigned to each school to support principals by helping with school level problem solving, and to insure that implementation was proceeding as planned. Although the extent of DOI involvement varied across schools, most principals and central office staff interviewed at the end of the field test year agreed that central office staff spent more time that year supporting basic skills instruction and were more effective in their efforts than in previous years. On occasion the linker also provided individual technical assistance to principals at the superintendent's request or with his approval. For example, one principal asked the linker to review instructional plans which teachers had developed for classes which contained two grade levels.

In other instances, principals asked the linker to examine completed conference forms. The potential difficulty with the strategy of having the linker provide individual principal assistance is that it may foster dependence rather than building capacity.

In the field test year, the district also used inservice to respond to the needs of the district's lower achieving schools. In mid-year, the district asked a local educational agency to conduct a series of teacher workshops on instructional techniques for presenting reading and math content. The agency proposed to work with only a few schools in the district. Although the idea of differentiation was new to the district, the assistant superintendent agreed to the agency's proposal and selected the four lower-achieving schools for participation. The BSC linker assisted in planning and conducting the workshops. The workshop topics were selected by principals on the basis of their teacher conferences and classroom observations. Principals were also responsible for assigning teachers to specific workshops. Each workshop extended over five sessions from January to May. The linker led two classroom management sessions for selected teachers. Although the district found the workshops to be generally beneficial, the logistics of a differentiated inservice were difficult to manage (e.g., releasing selected teachers, locating meeting rooms).

In 1982-83, the district continued to have separate monthly seminars for principals and DOI. Topics approved by the superintendent related to state mandates and district concerns along with areas of special interest to principals. The assistant superintendent made a separate agenda for DOI meetings. The DOI/principal pairings continued. DOI provided individual assistance to principals and inservice sessions to teachers in their

content areas. Most principals indicated during interviews that the DOI, in addition to assisting principals with teacher training and participatory supervision, either trained, or would train, new teachers in the district's instructional procedures.

For the 1982-83 and 1983-84 school years, a few principals reported receiving DOI assistance in areas of need identified during superintendent/district conferences. However, most principals felt that the conferences were conducted more for reinforcing the program and principals' accountability than for identifying and responding to principal needs. During the 1982-83 principal conferences, the superintendent reported that no needs which related to principal leadership functions were identified. The following year he reported that principals' needs for help with planning and monitoring were identified during conferences. The superintendent indicated that he either assisted these principals individually, or referred them to the assistant superintendent, to other principals, or to training tapes.

During 1983-84, district policy and procedures regarding inservice remained unchanged. Inservice continued in the form of whole group sessions at various levels, along with individual DOI assistance to principals and teachers. However, there were indications that the district saw differentiated inservice as a viable strategy. One example was a DOI inservice series on instructional techniques in mathematics for all seventh and eighth grade teachers. The decision to conduct the inservice was based on an analysis of the previous year's test results and the district's concern with ninth grade student performance on the state mandated achievement test. The DOI developed training and practice materials for teachers. DOI again conducted workshops for teachers new to the district.

As a result of 1982-83 and 1983-84 principal/teacher conferences, many teachers reported receiving assistance with planning, classroom management, and instruction. Although in the majority of cases this assistance was provided on an individual basis (probably during principal/teacher conferences and classroom observations), teachers reported being provided with inservice and materials as an outcome of conferences.

During the three-year period, the district seems to have been responsive to individual and group needs. However, the district was and still is reluctant to support differentiation as a guiding principle for inservice. The district strategy was to provide for total group inservice, differentiated by level and group need, and to pair individual principals and DOI to meet more specific school needs. There was some differentiated inservice during the three-year period but this raised planning problems (e.g., logistics), and the district was reluctant to single out staff with selected needs. Although DOI assistance at the school level is highly dependent on the principal/DOI relationship, and on individual competence and interest, the district feels that these practices have been successful and should continue.

Technical Assistance for Evaluation

One of BSC's overall strategies was to provide technical assistance for evaluation as a means of maintaining districts' focus on the goals of improved instruction and increased student achievement. During interviews, BSC assessed participants' perception of changes in their and others' roles as instructional leaders. Although limitations on BSC resources prevented the systematic collection and analysis of data on the classroom process

variables (i.e., critical student behaviors), student achievement data were analyzed by both the district and BSC during the three-year period. This section begins with a discussion of district staff's perceived changes in role, organized by level (superintendent, central office staff, principals, teachers). It is followed by an analysis of student achievement data during the period 1980-1984. Both sections include reviews of BSC and district strategies used to facilitate and carry out formative evaluation.

Role changes. A major goal of ADL is to have district staff adopt the role-related functions prescribed in the leadership plan. BSC's intent is for district staff to change their behavior in accordance with those functions specified in the plan. The information on role changes for educators in this district is based primarily on interviews administered to the superintendent, all principals, and 18 elementary school teachers. The data were collected during the 1983-84 school year (see Appendix A for the interview schedule) and deal with the period 1981-84. Data collected during the field test year are also presented where appropriate.

In interviews the superintendent stated that his role as instructional leader had changed somewhat as a result of the instructional improvement program. He thought the program had formalized the supervision process and focused his own leadership behaviors. In contrast, the majority of the principals noted in their interviews that the superintendent's role did not seem to change. In most of these cases, principals felt they had no standard for comparison because the program was implemented districtwide soon after the superintendent was appointed.

On end of the field test year questionnaires, most principals and many teachers indicated that central office staff, in general, spent more time

in 1981-82 planning and supporting basic skills instruction. Several principals stated in end-of year interviews that central office curriculum supervisors (DOI) helped them by observing classrooms, holding teacher conferences, and assisting with teacher training. Principal and teacher interviews conducted in 1983 and 1984 confirmed that the DOI continued this assistance during these two years.

By 1984, most principals thought their own leadership role had changed a great deal. The superintendent and many of the teachers interviewed agreed with this assessment. The changes most commonly mentioned by principals were more frequent classroom observations and teacher conferences, and improved monitoring of teacher coverage of instructional material.

Most teachers interviewed felt that their own role as instructional leaders had changed a great deal or somewhat. The superintendent stated that the teachers' role had changed a great deal as a result of the program, whereas principals felt that the teachers' role had changed somewhat. Although some of the teachers interviewed thought the changes were negative (e.g., more paperwork, less freedom, less creativity), a larger proportion mentioned positive changes, such as improved methods of instructional planning and classroom management.

The BSC linker assisted in the district's evaluation process by providing the district with BSC's analyses of district data and developing formal proposals based on these analyses. As mentioned earlier, each year the linker developed a formal proposal outlining district implementation activities and BSC technical assistance activities for the school year. The proposals were based on test results, interview data, conversations with the superintendent and assistant superintendent about district goals,

and principal feedback during seminars. As a model, the first proposal contained very specific deadlines/timelines which the district approved and followed. Later proposals were less specific as the linker felt the district would assume this planning responsibility based on previous experience. However, district leadership tended to focus on positive outcomes rather than on areas in need of improvement, i.e., the district did not use implementation data on leadership roles and classroom process variables in planning for the 1982-83 and 1983-84 school years. Principals were expected to follow the 1981-82 timeline. But, without directed guidance in the form of new or revised memos or timelines, principals had difficulty remembering the cycle of activities.

During the field test year, data on classroom process variables were collected and analyzed by BSC, and provided to the district in a summary report. However, these data were not formally used by the district or prepared during the following two years. Informally, the superintendent gathered information about classroom processes through meetings with principals, the BSC linker, and DOI staff, and used this information in program planning. For example, based on these discussions, the superintendent felt that ADL was successful in providing a basic foundation for improving a low achieving district. However, as a result of an additional perceived need to help teachers raise expectations and enhance student potential, another district effort which emphasized teaching styles and strategies was adopted. The superintendent was concerned that adherence to the curriculum without a concommitant change in teaching techniques would, in the long run, have depressed students' potential for achievement.

At the end of each school year, the BSC linker also prepared a summary of the year's interview results and developed some suggestions for the district's future planning. The summaries were shared with the superintendent and assistant superintendent. In some cases, the linker's suggestions were followed; in other cases, the superintendent decided action was not warranted or considered several alternatives. The data summary BSC prepared at the end of the 1983-84 school year was presented to principals, in a more general form, during a leadership seminar. This clarified for principals the need to increase ADL monitoring and implementation to improve instructional leadership and achievement. During leadership seminars and informal meetings, the BSC linker also encouraged district staff to use information from conferences, discussions, and observations for planning. For example, the linker suggested that the superintendent use this process to develop seminar topics and additional coaching for principals.

As previously mentioned, the district's major strategy for formative evaluation of instructional leadership and classroom process variables was the informal collection and evaluation of information. Principals also conducted informal evaluations for planning purposes. At the end of each school year, principals were required to develop a school year plan for the following year, based on a review of available data. The plans were submitted to the superintendent for approval. However, it is the linker's impression that the plans were general and did not refer to specific classroom data collected through use of the improvement cycle.

Student achievement. The New Jersey district administers the California Achievement Test (CAT) to all students in the spring of each year. Scores

for grades 1-8 for 1980-84 are presented in Table 2 as NCEs. The table also presents gains from 1980-81, 1981-82, 1982-83, and 1983-84. (See Appendix C for a discussion of the significance of achievement gains.) The scores in the horizontal rows represent different groups of students in each successive year.

Before the 1981-82 field test, low student achievement was a cause for district concern. Only one grade out of eight scored above the national average (50 NCEs) in reading; six grades out of eight scored above the national average (50 NCEs) in math. Average gains from 1980-1981 were only +1.4 for reading and +1.5 for math. The newly appointed superintendent felt that ADL had significant potential for improving basic skills instruction and achievement, and decided to implement the approach in grades K-8 districtwide during the 1981-82 school year. As Table 2 illustrates, students performed markedly better in the spring of 1982. Two grades in reading (grades 1 and 2) and seven grades in math (grades 1-7) scored above the national average of 50 NCEs. All eight grades demonstrated gains in both reading and math. Changes in reading averaged +4.0 NCE points and ranged from +1.3 to +7.9 NCEs. Changes in math averaged +5.1 NCEs and ranged from +2.3 to +12.9 NCEs.

Biester et al. (1983) present an analysis of these test data by school. This analysis suggests a relationship between level of ADL implementation and student achievement in reading and math. Achievement gains were most positive for those schools with the highest levels of implementation. The analysis also revealed a link between length of involvement and gains in achievement: two of the three schools that implemented program elements prior to the field test implemented the program more fully in 1981-82 and showed the greatest gain in student achievement.

Table 2

Student Achievement Scores[a]: 1980-84
New Jersey School District

READING

Grade	Scores[a]					Gains/Losses			
	1980	1981	1982[b]	1983	1984	80-81	81-82	82-83	83-84
1	50.2	54.6	55.9	56.6	54.9	+4.4	+1.3	+0.7	-1.7
2	46.3	47.5	51.5	51.5	55.5	+1.2	+4.0	0	+4.0
3	47.1	44.4	48.5	52.0	50.7	-2.7	+4.1	+3.5	-1.3
4	43.2	44.2	48.7	48.4	49.4	+1.0	+4.5	+0.3	+1.0
5	45.2	45.7	48.7	50.1	50.4	+0.5	+3.0	+1.4	+0.3
6	41.8	42.8	45.9	49.2	50.3	+1.0	+3.1	+3.3	+1.1
7	36.0	39.4	47.3	48.2	49.9	+3.4	+7.9	+0.9	+1.7
8	36.0	38.3	41.9	49.5	50.4	+2.3	+3.6	+7.6	+0.9
Mean	43.2	44.6	48.6	50.7	51.4	+1.4	+4.0	+2.1	+0.7

MATHEMATICS

Grade	Scores[a]					Gains/Losses			
	1980	1981	1982[b]	1983	1984	80-81	81-82	82-83	83-84
1	54.9	56.8	60.3	60.6	59.2	+1.9	+3.5	+0.3	-1.4
2	50.7	52.4	57.5	56.8	59.1	+1.7	+5.1	-0.7	+2.3
3	56.4	52.6	56.5	59.1	58.3	-3.8	+3.9	+2.6	-0.8
4	52.4	51.3	57.8	57.7	56.0	-1.1	+6.5	-0.1	-1.7
5	53.7	55.4	58.4	60.6	62.3	+1.7	+3.0	+2.2	+1.7
6	50.4	55.4	57.7	61.2	61.0	+5.0	+2.3	+3.5	-0.2
7	41.8	43.5	56.4	59.5	60.3	+1.7	+12.9	+3.1	+0.8
8	38.1	42.7	46.3	54.5	57.2	+4.6	+3.6	+8.2	+2.7
Mean	49.8	51.3	56.4	58.8	59.2	+1.5	+5.1	+2.4	+0.4

[a]Scores represent the results of California Achievement Tests (CAT) as Normal Curve Equivalents (NCEs).

[b]ADL was first implemented on a districtwide basis in 1981-82.

The upward trend in achievement gains continued over 1982-83, although the magnitude of the gains decreased. Four grades in reading and all eight in math scored above the national average. Seven of eight grades in reading and six of eight grades in math registered increases. The average change in reading was +2.1 NCEs, with changes ranging from 0 to +7.6 NCEs. Changes in math averaged +2.4 NCEs, and ranged from -0.7 to +8.2 NCEs.

In 1983-84, the positive trend was still apparent but again to a lesser degree. Six grades in reading and all eight grades in math scored above the national average of 50 NCEs. Six grades in reading and four grades in math demonstrated gains. The average change in reading decreased to +0.7 NCEs, with changes ranging from -1.7 to +4.0 NCEs. The average change in math was +0.4 NCEs, with a range from -1.7 to +2.7 NCEs. The superintendent attributed the decrease to an overall lessening in the degree of implementation sparked by his own relaxation of supervision procedures and his initiation of new district efforts, such as the teaching styles and strategies program. In addition, the large amount of time the superintendent devoted to sharing the district's success with outside educators (in conferences, symposia, etc.) detracted from the available time and perceived need to stabilize and institutionalize the new practices. However, in spite of the decrease in the magnitude of achievement gains over the last two years, the substantial initial increases were maintained.

In the New Jersey district, central office staff examined achievement data at the end of each school year to determine how grades within a school were distributed about the mean. The reports, which included a ranking of schools, were presented to the school board, and each principal was provided with a summary for his or her building. In addition, during the 1982-83

and 1983-84 school years, DOI staff analyzed achievement scores by objective. A summary of the resulting strengths and weaknesses was provided to each principal for incorporation into school year improvement plans.

To supplement these district summaries, each year BSC analyzed the amount of gains/losses for each grade within a school, and provided other data upon occasion (e.g., comparisons of several years' data at the school or grade level, the relationship between school level implementation and achievement). The superintendent used some of this information in program planning. For example, as a result of the dramatic increases in student achievement during the field test year, the superintendent reduced the number of required classroom observations and the number of principal seminars led by BSC. Then, when achievement scores suggested a declining trend during the 1983-84 school year, plans were developed to increase observations, BSC involvement, and the superintendent's monitoring.

Technical Assistance and Institutionalization

The long-term goal of institutionalizing improvement practices that are based on research findings on effective classrooms and leadership can be facilitated by assisting and encouraging districts to build ADL into district routines. In the New Jersey district both BSC and district strategies have fostered institutionalization. Some of these strategies have been referred to in earlier sections of the report.

The linker pursued several strategies to sustain implementation and foster institutionalization in the New Jersey district. One overall strategy, in accordance with the program model and top-down strategy, was for the linker to be highly proactive during the field test year, and in

subsequent years act as an ongoing resource for the central office in providing technical assistance as requested. It was hoped that the district would become more independent as the need for external support gradually decreased. Over the three-year period, the amount of support, in terms of formal and informal meetings with administrators and requests for technical assistance, did decrease. Following the field test year, the linker communicated more through telephone conversations and letters in order to help improve the quality, or "fine-tune" practices begun in 1981-82. At times, linker assistance in problem solving was requested. For example, during the 1983-84 school year, the linker was asked to participate in planning and seminars related to principals' leadership functions, e.g., participatory supervision.

Another linker strategy, which the research suggests is important to institutionalization, was to encourage the integration of ADL forms into district activities. The linker modified the forms based on BSC experiences and input from district staff. The principal/teacher conference form was revised at the end of each of the three years, and the quarterly topic plan, engagement rate form, and superintendent/principal conference form were each revised once. Feedback from the district indicated that, in all cases, the forms were used and the revisions were beneficial. Although the quarterly topic plan did become a districtwide format for instructional planning, the linker was not successful in having the superintendent replace or integrate district evaluation forms with ADL conference forms.

The linker was less successful with two other strategies. The first strategy was to have the district adopt the differentiated inservice model. Although there was some differentiated inservice during the three-year

period, the superintendent was reluctant to fully support the practice. The second strategy was to promote formative evaluation. Unfortunately, the superintendent did not follow the linker's model for developing yearly proposals, i.e., using implementation data on leadership roles and classroom process variables in planning for the next year's implementation. Although he did review data, he preferred to trust informal reports from principals.

The New Jersey district adopted many strategies or supports which promoted institutionalization. One overall support, which according to Miles (1983) is the basis for the successful institutionalization of an innovation, was the high level of administrative commitment to program practices, particularly from the superintendent. The superintendent viewed ADL as a way to accomplish his goals of improving principals' instructional leadership (i.e., getting principals to observe in classrooms) and improving instruction and achievement, rather than as an RBS program. This resulted in four types of district strategies.

The first strategy was the inclusion of ADL in initial policy decisions. The decision to implement coincided with the major district policy and procedure decisions of the newly appointed superintendent. The superintendent and ADL had common goals. Also, the superintendent saw his role as being active, highly visible, and directly supportive of principals. As a result, BSC's input in these early decisions was welcomed, particularly in areas such as instructional planning and monitoring, and participatory supervision. More important, the district assumed ownership of these early ADL-related policies and procedures. Indeed, several staff interviewed were not aware that some district procedures had originated from ADL.

Second, this administrative commitment was reflected in district documents. For example, at the beginning of each school year, the superintendent developed a written mission statement and an action plan which were distributed to all district staff. Many objectives in the plan related to ADL issues, such as instructional planning and classroom management. The superintendent, in pursuing his view of principals as instructional leaders, scheduled a two-week staff development program for principals each summer during which the action plan objectives for the school year were dealt with in more detail. This was also an opportunity to support principal inservice with organizational change.

In addition to mandating ADL practices, ADL was built into existing district requirements. For example, during the superintendent's supervisory conferences with principals a number of other issues, including state and local mandates for which principals are held accountable, were reviewed. In another case, the superintendent redefined the planning requirement in teachers' contracts to include the new instructional planning format. When teachers documented the extra paperwork involved, the district responded by pre-printing the elementary level plans as much as possible. Many teachers indicated that the plans were the most helpful part of the district program.

The superintendent also agreed to make prior learning data available to teachers so that the data could be used in instructional planning. At first he felt that the cost of reorganizing the California Achievement Test data by incoming classes was unwarranted in such a highly mobile district. As an alternative, the superintendent rescheduled the date for administering a diagnostic prescriptive test to early in the school year so that test results would be available in time to be used in instructional planning.

However, these test data were not provided in time to be useful for first quarter planning. Therefore, during the third year of implementation, the district provided teachers with reorganized California Achievement Test data.

Another strategy which the district adopted to foster institutionalization was to integrate new district programs with ADL. The superintendent assumed that after one year of implementation, ADL was a solid foundation upon which other programs could be built. One innovation which was adopted was a model for varying teaching styles to match various student learning styles. However, this strategy was not successful for several reasons: the two programs were based on different implementation models (top-down vs. bottom-up), there was no opportunity for communication or coordination between the program linkers, and more importantly, many principals interpreted the new effort as replacing rather than supplementing ADL as the focus of principal seminars and superintendent communications shifted. Although the superintendent's goal was to continually upgrade the district, he was overconfident in his assumption about the speed and conditions under which institutionalization of an innovation occurs.

Fifth, the district developed new policies which supported ADL, either directly or indirectly. One very successful strategy was pairing a DOI staff member with each principal to assist in planning and implementing ADL at the school and classroom levels. Both DOI staff and principals were required to submit monthly reports on their activities to the superintendent. This DOI responsibility began during the field test year, and throughout the three-year period the pairings continued, although the actual arrangements of shared work load varied across schools. During 1983-84 interviews,

most principals indicated that DOI staff assisted with time-on-task observations. In some cases DOI assistance also included conferences, workshops, school-level planning, and individual teacher assistance. Examples of other new district policies which indirectly related to ADL were: the annual ranking of schools based on achievement scores; presenting these data to the school board; and adopting a grading and promotion policy for students in grades K-8 which supported prior learning, coverage, and academic performance. Although the latter policy was beneficial in standardizing grade policy across the district, it conflicted with the accepted procedure of automatically promoting "problem" children.

One promising sign of institutionalization in this district is the spread of ADL elements to new classes and grade levels. In 1982-83, special education supervisors began to conduct observations of student engaged time. Also, based on the program's success at the elementary level, the district decided to extend curriculum alignment and leadership practices to the high school. Planning for high school implementation began in the summer of 1982, and has proceeded in accordance with district and BSC expectations.

Institutionalization in the New Jersey district has been promoted by several factors, the most important being that the superintendent was committed to the program and mandated districtwide implementation. The superintendent provided and arranged for support and assistance with implementation; there was stability in program leadership and staff; and attempts were made to build program policies and procedures into district documents and routines. The significance of district commitment and interest is exemplified in the overall decrease in the level of ADL

implementation (and student achievement) during the 1983-84 school year, when the superintendent was less active and visible in his support of ADL. This change in the superintendent's behavior resulted from his assumption that ADL would automatically continue. Ironically, during this school year, a large portion of the superintendent's time was spent sharing the district's success with outside educators. It can be assumed that the administration's more visible expression of commitment to ADL in 1984-85 will again result in a high level of institutionalization.

In the New Jersey district, ADL practices are embedded in the district's organization, procedures, and routines. However, variation across years suggest that beyond the paper documentation and altered routines, institutionalization requires, for some unspecified amount of time, active district leadership, external support at critical junctures, and continued monitoring.

The Delaware District

The Delaware district is a small rural district serving a population of predominately low socio-economic status. As of 1981-82 there were approximately 2,100 students in one kindergarten school, two elementary schools (grades K-5), one middle school (grades 6-8), and one high school (grades 9-12). Minority group students made up about 20 percent of the population. In the fall of 1978, before the district began to work with RBS, students were scoring around the national average, but well below the state average, on the standardized achievement test administered statewide. In fact, the district was among the lowest scoring districts in the state. This fact was publicized in state department reports and created some public press for the improvement of achievement.

During the 1978-79 school year, the district began to cooperate with the BSC as a development district. Subsequent program implementation occurred over three and one-half years. This cooperative development involved principals and teachers from all schools, but participation was greatest at a Basics Plus elementary school. During 1979-82, the district's central office provided continued support for the program. Top administrators who played major roles in implementing and maintaining ADL were the superintendent, the deputy superintendent, and the director of special programs. Although the director of special programs was given significant responsibility for overseeing day-to-day implementation, the position did not have line authority over principals. The departure of the district's superintendent and the Basics Plus elementary school principal in June 1983 was accompanied by a reduced emphasis on both the improvement approach and BSC involvement. In January 1984, the director of special programs also left the district.

Data from the Delaware district are included in this report for the contrast they provide with data from the Pennsylvania and New Jersey districts where there were more active district efforts to maintain Achievement Directed Leadership and a much greater level of ongoing support from BSC.

Technical Assistance to Build Capacity

The following discussion is organized around the program's central element, attention to classroom variables, and the four program elements described in chapter 3. Each section describes the strategies BSC employed to promote and sustain implementation of the element and the extent to which the element was implemented. The amount of information included in

these sections is limited by the nature of BSC's involvement in the district. Table B-3 in Appendix B summarizes interview and questionnaire data relevant to the extent to which the district attended to classroom variables and implemented the three elements: principal seminars, principal/teacher conferences, and superintendent/principal conferences.

Attention to classroom variables. ADL gives special attention to four classroom variables which research has shown are highly related to student achievement: prior learning, student engaged time, coverage of criterion content, and academic performance. Much of the formal training related to these variables was provided during the period of cooperative program development (1978-81). Furthermore, by 1981 the district had already completed many prerequisite tasks necessary for content management. For example, the district developed reading/language arts and math curricula and selected standard texts during the first year of program development. This work was undergirded by the BSC logic and rationale for content management; a major criterion in the curriculum development and text selection process was assurance that there would be a high percent of content overlap with the standardized achievement test.

For the field test year, BSC linkers provided a good deal of technical assistance related to the critical classroom variables. Much of this assistance involved meeting with the director of special programs and other district office staff to review the status of implementation and plan for further implementation (e.g., schedule implementation events, arrange for appropriate test data). BSC staff also led and assisted with training for administrators and teachers. In connection with these workshops, the BSC linker often developed materials later used in implementation. For example,

for the content management workshops in reading/language arts and math, the linker developed forms which indicated the overlap in content between the year-end test and the district's list of minimum competencies or the tables of contents in the district's textbooks.

The district also provided technical assistance related to the classroom variables, often in connection with the teacher workshops described above. For example, the Title I director analyzed the spring 1981 standardized achievement test results to determine levels of student prior learning. Teachers used this information in the content workshops to determine student strengths and weaknesses which they recorded on the overlap forms.

Interview data indicate that, during the field test year, two rounds of engaged time observations were conducted by the Basics Plus elementary school principal. The assistant principal at the other elementary school conducted one round of observations for all teachers, and a second round upon teacher request and for special education teachers. Central office staff and principals indicated that attention was being given to all three content variables--prior learning, coverage, and academic performance. Teachers confirmed this in year-end questionnaires. Overall, BSC's technical assistance appeared to sustain the district's implementation of ADL's time and content components during the field test year.

Prior to the 1982-83 school year, BSC and the superintendent agreed that future work would be on a more limited basis. Specifically, the BSC linker would respond to district requests for assistance, rather than assume a proactive role. During the year, the BSC linker helped district staff plan and lead a teacher workshop on content management. Interview

data indicate that teachers considered not only prior learning but also content overlap in planning instruction. In terms of student engaged time, the degree of implementation decreased. Only the principal of the Basics Plus elementary school conducted classroom observations during the 1982-83 school year. The assistant principal of the other elementary school, who had previously conducted observations, left the position in June 1982.

The following year, 1983-84, BSC technical assistance was not requested. As mentioned earlier, the superintendent and the Basics Plus principal left the district in June 1983. Prior to leaving the district in February of that year, the director of special programs, along with the assistant principal at the middle school, conducted a teacher workshop focusing on student prior learning. Teachers and principals reported attending to prior learning, which suggests the workshop was successful. During the 1983-84 school year, principals did not conduct classroom observations. However, teachers in one school indicated that they were aware of time-on-task and that they periodically scanned their own classrooms. The Basics Plus principal who left the district in June 1983 continues to conduct time-on-task observations in her new position as principal of an elementary school in a large urban district.

Principal seminars. ADL calls for central office staff to conduct regular principal seminars. Seminars are intended as problem-solving and planning forums. Their purpose is to maintain instructional improvement as a high district priority and sustain and improve leadership practices.

Central office staff, primarily the director of special programs and the deputy superintendent, requested technical assistance with planning and leading principal seminars approximately five times during the field test

year. Most central office staff and all principals and assistant principals attended the seminars. Topics included: an overview of ADL and implementation plans; conferencing procedures; a review of standardized achievement test results; a comparison of ADL and mastery learning; and a preliminary review of field test results. Although initial sessions were led by BSC linkers, later sessions were co-led and led by central office staff. BSC felt that the sessions were excellent learning experiences and were well received. The effect on ADL implementation appeared to be positive.

During the 1982-83 school year, the superintendent included inservice training for principals as part of regularly scheduled principal meetings. These sessions, led by district office staff and/or consultants, were designed to keep principals up-to-date on current theoretical developments. As BSC was not involved in these sessions, their similarity to ADL leadership seminars is unknown. Due to a large amount of personnel turnover in the district, principal seminars/meetings were not held during the 1983-84 school year.

Principal/teacher conferences. These formal conferences provide an opportunity, following each round of observations, for the principal and teacher to discuss data on all of the critical student behaviors, identify any opportunities for improvement, and agree to improvement plans. BSC suggests that principals conference with each teacher at least three times a year. A conference form was developed for teachers and principals to record conference data and strategies for improvement.

During the field test year, BSC assistance related to principal/teacher conferences was provided through a principal seminar and also through individual meetings with principals and assistant principals. The Basics

Plus principal followed the first round of observations with conferences (using a portion of the ADL conference form). The second round was followed by pairs of teachers discussing strategies (no conference form was used), and the final round of observations was followed by the district's mandated evaluation conference (using the ADL engagement rate form and the district's evaluation form). The assistant principal at the other elementary school also conducted conferences following observations but used the engagement rate form rather than the conference form. Student engaged time was the only classroom variable discussed. Overall, BSC technical assistance in this area was not successful. This was due, in part, to the superintendent's reluctance to support the use of the conference form. He was concerned about possible confusion between the ADL conference form and the district's evaluation form. At one point, the superintendent considered developing separate conference schedules (and procedures), but never followed through with the idea.

The following year, 1982-83, the Basics Plus principal used the engagement rate form once alone, and then again with the district's evaluation form during teachers' annual evaluations. Principal/teacher conferences were not conducted at the other elementary school that year, or at either elementary school the next year, 1983-84.

Superintendent/principal conferences. The ADL leadership plan specifies that the superintendent hold several formal supervisory conferences with principals to review school and classroom data and to discuss improvement opportunities.

During the field test year, the BSC linker met individually with central office staff and the principals to discuss the conferences. The

director of special programs reported conducting two conferences with the Basics Plus elementary school principal and the assistant principal of the other school. The director of special programs held the second round of conferences reluctantly because she felt the first round had been of little value. However, the Basics Plus principal indicated that the conferences were helpful. No additional superintendent/principal conferences were conducted during the 1982-83 or 1983-84 school years.

It is not surprising that BSC's technical assistance did not facilitate the implementation of superintendent/principal conferences. District support was limited, and principals did not use the structured principal/teacher conference forms to identify improvements needed in classroom variables and instructional leadership functions.

Differentiated inservice. Seminars, principal/teacher conferences, superintendent/principal conferences, and informal observations are means for district leadership to collect and synthesize information about the performance of principals and teachers, and to identify individual needs related to instructional improvement. The leadership plan suggests that the district office be proactive in providing for small or large group inservice based on diagnosed needs. No such inservice was provided to principals or teachers from 1981 to 1984.

Technical Assistance for Evaluation

From the outset, BSC staff intended to provide technical assistance to assure that districts focused on the principal benefits of the innovation--improved instruction and increased student achievement. Therefore, technical assistance emphasized the long-term impact of implementation events and

procedures. While limitations on BSC resources have prevented the systematic collection and analysis of data on impact, data were gathered from participants about their perceptions of changes in roles--especially changes which reflected the leadership plan. Both BSC and districts also gathered data on student achievement. In general, BSC shared the data with the field test districts for planning purposes. However, formative evaluation of ADL was of little concern to the Delaware district since implementation dropped off after the field test.

Role changes. One ADL objective is to have district staff carry out activities defined by the leadership plan. If staff change their behavior to conform more closely to the functions specified in the plan, then the program has had an impact. The following discussion of role changes is based primarily on interviews which BSC staff conducted in the spring of 1982, 1983, and 1984. (A complete list of interviews is found in Appendix A.)

Since the superintendent brought ADL to the district, principals felt that he had always been an instructional leader. Therefore, when asked if the superintendent's role had changed, they indicated it had changed very little or they were undecided. The deputy superintendent felt that her role changed somewhat; the director of special programs felt that her role changed a great deal but that this change was not maintained. Interestingly, teachers felt that the district's role changed somewhat or a great deal, and noted inservice devoted to instructional planning as the major district change.

The principal of the Basics Plus elementary school felt that her role changed a great deal, particularly with regard to observations, the

conference model, and attending to classroom variables. This principal co-authored an article about the development effort, "Improving Instruction Through Research-Based Staff Development" (Educational Technology, 1980). In the article she testified to her own role change and that of her staff:

> The program affected the teacher's role with students, other teachers, and the principal. In addition, the project enabled the principal to look for many more specific student and teacher behaviors in the classrooms, such as the teacher establishing anticipatory set, objective, and purpose, and the students' performing "engaged" behaviors. It facilitated the use of descriptive vocabulary concerning these behaviors. The principal referred to specific data, rather than opinions. (p. 42)

The director of special programs reported that this principal's role changed somewhat. Two of the teachers interviewed indicated that the principal's role had changed a great deal or somewhat. They also felt that their own roles had changed a great deal. Both mentioned the management of time as the greatest area of change. The third teacher was undecided about the principal's and her own role change. She began her teaching career during the year the district began cooperating with RBS in developing the program. Therefore, she felt she had no standard of comparison.

The principal of the other elementary school felt that her role changed somewhat even though she never conducted ADL classroom observations or conferences (the assistant principal accomplished these tasks during the field test). The director of special programs agreed with the principal's assessment. However, the three teachers interviewed at that school were undecided about the principal's role change, or felt that it changed very little or somewhat. Calling attention to the "ADL variables" was the only change mentioned. These teachers assessed their own role change as somewhat (two teachers) or very little (one teacher). The areas of change mentioned

were classroom management and attention to prior learning strengths and weaknesses. The principal reported very little role change for teachers in her building. District staff indicated that teachers in both schools only changed somewhat.

Student achievement. ADL's primary objective is improvement of student achievement. The Delaware school district began to cooperate with RBS in program development for the express purpose of raising low achievement. BSC, for its part, did not anticipate dramatic gains in achievement in the first few years due to the incompleteness of many program elements. Nevertheless, BSC collected student achievement data for the district as a whole, by grade, each year.

ADL was first implemented in the school district in the 1978-79 school year. In the fall of 1978, student achievement at most grade levels was slightly higher than the national norm but lower than the state norm. However, in the spring of 1979, after one year of implementation, all grades registered impressive increases. (See Appendix C for a discussion of the significance of achievement gains.) The average gain on the total battery of tests was +13 NCEs. Gains ranged from +0 to +22 NCEs. These gains are an encouraging sign of ADL's potential for raising student achievement, but they should be viewed cautiously. It is generally unwise to compare test results from tests administered at different points in the same school year--in this case fall 1978 to spring 1979. The comparison is discussed here because the state department did not mandate testing at all grades in the spring of 1978. Overall, student achievement dropped slightly from the spring of 1979 to the spring of 1980. The average change in achievement was -3 NCEs. Changes ranged from -10 to +3 NCEs.

Test results for grades one through six across five years (1980-84) are summarized in Table 3 in terms of normal curve equivalents (NCEs). The table also shows the change in NCEs registered from one year to the next. The scores in the horizontal rows represent different groups of students in each successive year.

Table 3

Student Achievement Results: 1980-1984
Delaware School District

Grade	Scores[a]					Gains/Losses			
	1980	1981	1982	1983	1984	80-81	81-82	82-83	83-84
1	61	65	65	64	-	+4	0	+1	-
2	67	65	65	67	66	-2	0	+2	-1
3	58	63	63	64	62	+5	0	+1	-2
4	63	64	65	65	66	+1	+1	0	+1
5	60	62	69	69	62	+2	+7	0	-7
6	-	-	60	64	62	-	-	+4	-2
Mean	62	64	65	66	64	+2	+1	+1	-2

[a]Scores represent results of California Achievement Tests (total battery) in Normal Curve Equivalents (NCEs) for 1980-1983, and Comprehensive Test of Basic Skills (total battery) for 1984. Means are based on scores for grades 1-5 for 1980-83, and grades 2-6 for 1984.

From 1980 to 1983 (see Table 3), achievement rose slowly but steadily. In the spring of 1984, however, achievement seemed to drop slightly. This drop coincided with the departure of the superintendent and the principal of the Basics Plus elementary school. Both were strong supporters of the program. It should be noted that, although all test scores are reported as

NCEs, the state substituted the Comprehensive Test of Basic Skills (CTBS) for the California Achievement Test (CAT) in 1984.

Technical Assistance and Institutionalization

BSC linkers pursued several strategies to sustain implementation and foster institutionalization. The first major strategy BSC used to foster institutionalization in the Delaware district was to relate ADL training during principal seminars to other district activities and concerns. For example, during one principal seminar the BSC linker related ADL to mastery learning. At the time, implementation of mastery learning was one of the superintendent's highest priorities for the district. However, this strategy was not successful as the superintendent did not continue to include issues directly related to ADL in principal meetings as the level of implementation decreased.

BSC's second strategy was to encourage the incorporation of engagement rate observations into principals' annual teacher evaluations. Although one principal adopted this practice to some extent (i.e., engagement rates were discussed in the evaluation conference but were not entered on evaluation forms), the idea was opposed by other principals, assistant principals, and a select group of teachers. This strategy was also not successful as the superintendent relented to the pressure. The principal who adopted the practice continued to include engagement rate data in annual evaluations until her departure in 1983.

In conclusion, ADL practices were not mandated in the Delaware district, and the one administrator who provided assistance with implementation, the director of special programs, did not have line authority over principals.

Thus, the key factors needed for institutionalization, according to Miles (1983), administrative support, demonstrated commitment, and pressure, were absent. In addition, the lack of stability among program leadership and staff negatively affected any opportunity for institutionalization.

Nevertheless, there are encouraging signs of institutionalization. Teachers in the Basics Plus school have continued to scan their own classes for engagement rates--without the assistance of the new principal. In addition, the district has been successful in integrating into district routines the practice of examining prior learning data in planning instruction. Before the start of each of the three school years, the district requested reorganized classroom data from the state department. DPI worked with administrators in the district on attending to prior learning. A cross-fertilization of ideas between the district and the DPI seemed to occur: DPI later delivered throughout the state training related to prior learning.

CHAPTER SIX

CONCLUSIONS AND OBSERVATIONS

The previous chapters of this report described BSC experiences with strategies designed to foster implementation and institutionalization of ADL in three districts. The first section of this chapter presents some conclusions concerning the five major research-based strategies which BSC pursued. The second section contains some general observations on the barriers to and facilitators of implementation and institutionalization. As noted in chapter 1, these conclusions and observations are not presumed to be definitive. Rather they are important reflections on the component's experiences which BSC believes are worthy of the consideration of others who are working to enhance the effectiveness of schools and classrooms.

Conclusions Concerning Major Strategies

The five major strategies BSC pursued in its capacity building efforts were described in chapter 2:

- limit the number of highly specified implementation processes and materials which are essential to a faithful implementation of ADL
- orient, plan, and train following a top-down sequence
- use innovation-specific implementation events to help districts develop the general planning and organizational skills needed for implementation of the innovation
- provide on-site technical assistance following training
- consider the probable long-term impact of early design and implementation activities.

BSC's conclusions about each of these strategies are discussed below.

Limit Specificity

The intent of this strategy was to provide opportunities for implementors to create their own distinctive means of carrying out many of the ADL activities and thus develop ownership in the improvement effort. Relatively early in its development work, BSC began to question the value of this strategy for the following reasons: (1) in many cases districts had little time for these supporting activities; (2) practitioners were more interested in rights of review and approval than in contributing to the design of experimental methods and materials; and (3) when practitioners did participate, this participation did not always lead to a sense of ownership (Graeber & Helms, 1983).

In planning for the field test, the superintendents agreed with BSC's assessment that in the absence of BSC specified processes or materials, needed training or implementation events were not likely to occur. Thus, as noted in chapter 3, BSC devoted much time in the summer of 1981 to the design and development of ADL elements that had previously been reserved for local users.

In order to facilitate district use of the variables management process, three implementation activities were specified. BSC provided a rationale, reasonable methods, and training for: principal seminars, principal/teacher conferences, and superintendent/principal conferences. As indicated in chapter 5, experience in the three districts proved that BSC's development efforts were beneficial and that the activities supported the districts' use of the improvement cycle. For example, principals viewed their conferences with the superintendent and the seminars as supporting and benefiting instructional improvement. Similarly, most

teachers reported that their structured conferences with principals contributed to instructional improvement. And, linkers, central office staff, and principals reported that the principal/teacher conferences fostered teacher use of the variables management process in planning and executing classroom instruction and management.

To facilitate the use of the variables management process, BSC developed training material for another implementation activity, the provision of differentiated inservice at the building and district levels. Although differentiated inservice was not a pre-designed program element, BSC expected that issues raised in seminars and conferences would lead to the development of differentiated inservice if the district was attending to its own renewal and reform. The concept of differentiated inservice was new to all three districts, and relatively little differentiated inservice was provided. The pervasive notions of equity and choice with respect to inservice (i.e., all principals or teachers are treated alike, or any differentiation is the result of a choice made by the intended beneficiary) seemed very difficult to change. The expected logistical difficulties and contractual arrangements that specified who determined the content of inservice were formidable barriers to differentiating inservice according to individual need. Differentiated inservice is an intended outcome of ADL implementation that was difficult to achieve.

In retrospect, BSC's experience suggests that development of methods and materials which specified a way, albeit not the only way, of carrying out leadership activities directed toward use and support of the variables management system was beneficial. But what of the ownership local development was to build? The component's experience suggests that, at least for

an innovation as comprehensive as ADL, there are many opportunities for adaptations despite relatively complete predesign of materials. BSC observed that the sense of ownership (as well as understanding) was built as people invested time in the implementation and when the implementation was successful. BSC experiences in the three districts also showed that when the superintendent clearly required that certain activities be undertaken and provided needed support and monitoring, central office staff, principals, and teachers utilized predesigned materials and procedures to achieve changes in classroom processes and in student achievement.

Install Top-Down

BSC adopted a top-down installation model (superintendent, principals, teachers) for two main reasons. First, the component sought to garner the support of the district leadership by recognizing their leadership position. Second, BSC saw this top-down strategy as an economical means for disseminating ADL within a district, through top-down turnkey training.

BSC is still convinced, perhaps more convinced than ever, of the value of top-down installation in gaining the support of district leaders. As Huberman (1983) notes:

> ....administrators, both at the central office and building levels, have to go to center stage and stay there if school improvement efforts are to succeed. More nondirective strategies can work ...but are poorer bets; they amount essentially to playing dice with the fate of an innovation. (p. 27)

A top-down approach places administrators at center stage.

Given the structure of school districts (e.g., frequently principals are responsible only to the superintendent; lack of coordination between staff with curriculum, testing, and inservice responsibilities) it seems

unlikely that district staff other than the superintendent could command the resources, support, or authority required to implement ADL or any comprehensive innovation. Without the superintendent's active participation, implementation is likely to fail.

The second proposed benefit of the top-down model was to develop the district's own capacity to train principals and teachers. BSC still believes that this notion is sound. In addition to the economic advantages, the strategy also helped establish local personnel as instructional leaders. There were practical problems with the turnkey training strategy, but BSC maintains that the strategy's benefits warrant the effort to solve the problems.

In many cases, central office staff and principals seemed reluctant to turnkey their training because of the high level of knowledge and skill that appeared to be required. In response, BSC provided them with training scripts and videotapes of the technical aspects of training. It also seemed helpful to model the training for the central office staff and principals and to give them time to plan and practice the training in small groups. Districts used other strategies as well, such as having two principals, or a principal and a member of the central office staff, share their training responsibilities.

A second difficulty with the turnkey training strategy occurred in districts with few central office staff. No time was available for these staff to be trained and then to turnkey their training to principals, given the numerous responsibilities of the central office staff in a small district. In these instances, central office staff and principals were trained in the same sessions. It was possible to schedule a few critical planning/decision-making sessions with central office staff only.

Finally, superintendents were reluctant to spend the time required for their own training, although they readily agreed that many of the required decisions demanded their understanding and attention. BSC suggests that training can be tailored more specifically to superintendents and that attendance at an academy exclusively for superintendents might be a practical and logical prerequisite to district adoption of the program.

BSC's experience confirmed the value of the top-down installation process, in spite of the model's difficulties such as its dependence on strong administrative leadership, and its vulnerability to central office politics and existing policies (e.g., policies concerning principal autonomy). However, it must be recognized that ADL is designed to facilitate communication from the bottom up so that each level of the system can provide informed support for the levels under its supervision. Top-down installation without provision for feedback and support from other levels would contradict the central philosophy of ADL and would surely fail in practice. ADL provides for this feedback and support through structured conferences and seminars.

Begin Installation at the District's Current Level of Organizational Development

BSC decided that in districts with weak organizational skills (e.g., planning), as is frequently the case in low achieving districts, BSC would strive for improvement of these generic skills as the district worked to install and implement ADL. To not work with such districts was inconsistent with the component's mission. The other alternative, of first working with a district on improving its organizational skills, would have unduly lengthened the instructional improvement process and might have distracted

staff from the procedural or technical changes needed for the improvement of instruction (e.g., alignment of curriculum and testing).

Although the three field test districts appeared capable of carrying out many logistical activities (e.g., bussing pupils, providing supplies) with some facility, their planning and delivery systems for inservice and instruction presented opportunities for improvement. At the central office level, the most frequent opportunities for improvement were in planning projects and coordinating them across departments or divisions. The planning capability of district personnel was enhanced, but it took time to establish the discipline of planning and following through. Many installation and implementation events in the districts were delayed because planning was not completed on time.

Many principals needed to improve their planning and delivery of teacher training and their conduct of conferences. When it was necessary for linkers to assist with process skills, installation and implementation proceeded more slowly. For example, linkers found it necessary to provide special training to principals on conferencing, including time for practice with feedback. Although this training delayed implementation, the extra assistance proved to be valuable in the development of needed skills.

Despite their need to develop organizational skills, the three districts succeeded in installing and maintaining ADL, and student achievement improved. As Pincus and Williams (1979) suggest, external linkers need to be aware of a district's general level of organizational development. BSC experience suggests that organizational skills can be fostered concurrent with specific instructional improvements. However, BSC agrees with Rosenblum and Louis (1981) and Pincus and Williams (1979) that some

stability in district leadership and a minimum of organizational skills are required before a district can effectively innovate--especially if the innovation is complex. BSC's experience confirmed the comment that while "skeptics claim that only schools that are ready to change can succeed from the strategies...schools that are not advantaged can benefit in major ways from very modest amounts of assistance." ("Two large-scale," 1982, p.2).

Provide Technical Assistance

BSC's reading of the literature suggested that district success with implementation would require on-site technical assistance after the completion of initial training in the classroom variables. BSC conceived that this technical assistance to the district should include one or more of the five components of effective teacher inservice suggested by Joyce and Showers (1980), as needed: presentation, modeling, practice, feedback, and coaching.

In reviewing its initial training of central office staff and principals, BSC concluded, as did Joyce and Showers (1980), that "it appears wisest to include several and perhaps all of the training components" (p.384). There were instances when one or more of these components were omitted from initial training (e.g., not providing principals with time to practice their training of teachers) because of a lack of time or because BSC presumed a level of skill that in fact did not exist. In these cases, the omission was reflected in the trainees' less than satisfactory application of that training.

As reported in chapter 5, BSC's technical assistance during implementation was helpful to the districts and compensated for some of the shortcomings of the initial training. It is interesting to note that the technical assistance provided to districts during implementation did indeed fall into categories that are essentially the same as the Joyce and Showers components of effective training. On site, the linker:

- presented new perspectives on the initial training, elaborating on the rationale or recalling parts of the training and relating it to the district's current applications
- demonstrated an activity, if needed
- provided more practice
- gave feedback
- observed the district's transfer and provided further on-site assistance as needed.

Usually only one or two of these steps were used to fine tune a given process. However, the linkers used each of the steps at some point during the three years.

BSC perceives that the amount of technical assistance provided in two districts (approximately one day per week during the field test year and one day every other week during the following two years) was higher than is "typical" during implementation of an innovation. The question of how much technical assistance to provide was always a BSC concern. How do linkers provide needed assistance without fostering dependency? Or, when do linkers' attempts to assist proactively work against building local capacity? Some of the guidelines BSC linkers developed are:

- Require that district personnel be present to contribute to planning sessions. Do not plan in their absence. Whenever possible, show how planning can be guided by training materials available to the district.

- Model a task when the district has specific plans to carry out the task in the near future. If the district will not be carrying out the task on its own, insist that the learners take at least some small role in the task.

- Have the district present installation and implementation plans and timelines to principals and teachers, thus conveying district, rather than external agency, ownership.

- Continually assess the need for external assistance. If there is a true lack of know-how, provide assistance. If external participation is valuable because it creates a priority for the innovation in a setting with many demands, provide the technical assistance but also strive to increase the district's commitment to the implementation. If district personnel are unwilling to implement, perhaps because "administrators are unwilling to take on the conflicts involved" (Huberman, 1983, p. 26), consider discontinuing technical assistance unless there is a change in the behavior of the district leadership.

Consider Long-Term Impact

BSC's fifth major strategy was the attempt to incorporate lessons on educational change into the design, installation, and implementation of the innovation. The component was particularly interested in the probable long-term impact of the program's design and implementation tasks on implementation and institutionalization. The lessons followed during program design were reported in Graeber and Helms (1983). Lessons that were followed with respect to installation and implementation are summarized below. When the lessons were followed, they fostered institutionalization; however, barriers impeded implementation of some of the lessons.

BSC followed the educational change literature's suggestion that districts use local funds or resources to support the innovation. Although BSC's training and technical assistance were supplied without charge, districts had to fund inservice time for principals and teachers, the duplication of materials (after the field test year), and other activities

related to content management (e.g., reorganizing test data). Districts accepted this strategy, and BSC found that a district's willingness to use its resources was a measure of commitment.

BSC linkers attempted to have districts avoid duplication of effort between the innovation and existing processes. Duplication of effort was always an issue for the teacher observation and conferencing process. Each of the three states had its own forms and/or requirements for classroom observations and teacher evaluations. Although the specificity of the procedures and forms varied, none involved systematic data collection on the critical classroom variables that is part of ADL's observation/conferencing process. The three districts opted to keep the teacher evaluation system separate from the improvement effort for the first several years. This raised some concerns. When the systems were kept separate, principals objected to conducting two sets of observations but felt obligated to do so. Given the infrequency of state mandated observations (one or two a year), the total number of observations required per year was only a legitimate concern in schools with large numbers of teachers. Having dual observation systems raised two other issues. First, if the systems were kept separate, should principals ignore the improvement observations when completing the state mandated evaluations? Second, if the improvement effort observations were directed at the critical variables, shouldn't the formal evaluations address the same factors? Although all three districts suggested that the observation systems be merged after a year or two, this was not accomplished in any of the three districts. The issue was complicated by the districts' contractual arrangements with teachers, as well as by state evaluation requirements.

Somewhat more progress was achieved with another lesson on educational change, which was to encourage districts to incorporate ADL activities into district policies and procedures. The willingness of the district leadership to actively champion the changes in policies and procedures was critical. At times, this involved negotiating changes in staff contracts (e.g., to legitimize use of teacher "prep periods" for principal/teacher conferences). However, even when districts made alterations in their policies and procedures, the continued active support of the superintendent was essential for institutionalization to occur.

Observations

BSC's experience has identified a number of conditions in districts which facilitate or hinder implementation and institutionalization. This section includes some observations on the most salient of these conditions: commitment, coupling, districtwide implementation, and administrative leadership.

Commitment

There is agreement in the educational change literature that teacher and administrator commitment to an innovation is positively correlated to outcomes of the implementation. Questions of how and when the commitment is developed remain unanswered.

BSC originally adopted the strategy of limiting prescriptiveness of the innovation and encouraging local development to build user commitment. That strategy seemed unreliable. Further, BSC, like Huberman (1983), frequently found that change is not always in the self interest of district

personnel. Often during change, "one person's 'strategy' for school improvement collides with another person's 'strategy' for avoiding loss of status or freedom or benefits" (Huberman, 1983, p. 23). Huberman notes that, as a result, the change process is taken up with political bargaining that draws energy away from implementation. This occurred in the Pennsylvania and New Jersey districts. In the Pennsylvania district, the struggle continued throughout the three years, and the innovation suffered. In New Jersey, the superintendent was adamant in calling for implementation, which initially may have caused low levels of principal and teacher commitment. However, implementation took place, and in comparison to the Pennsylvania district the prospects for institutionalization of ADL seem brighter.

BSC experience suggests that attempting to win commitment for an innovation prior to implementation may be unrealistic, and that commitment from central office staff, principals, and teachers develops with mastery of the innovation and with success with its use. A commitment from the superintendent to sincerely back the innovation may be a more reasonable expectation for external linkers.

Coupling

A much debated issue in recent literature is whether or not the loose coupling so frequently observed in school districts is beneficial to implementation. BSC experience confirms the Wilson and Corbett (1983) observation that "if certain practices are effective and deemed worthy of widespread use, then tighter linkages are apparently the structural conditions that can best promote their implementation" (p. 102).

This view seems consistent with Huberman's (1983) observations that, for an innovation to succeed, administrators need to exert "strong and

continuous" pressure on teachers to adopt the new practices. It is BSC's observation that this pressure must be exerted not only on teachers but also on principals and central office staff..

BSC experience further suggests that districts who wish to tighten couplings can do so, although much time and effort are needed to counteract staff resistance. Loose coupling does not have to be accepted as a given condition.

Districtwide Implementation

Another factor related to commitment to and success of an innovation is the extent of the initial implementation within a district. Many of the superintendent's decisions and the central office staff's tasks are essentially the same regardless of the number of schools involved in the implementation. It is difficult for BSC to determine the relationship between districtwide implementation and commitment. Does greater initial commitment lead to districtwide implementation? Or does the decision to implement districtwide result in greater commitment from the leadership? In either case, BSC observed greater administrative commitment and leadership when implementation was districtwide. This observation is consistent with Miles' (1983) observation that as the percent of users approaches 100 percent of the potential users, the likelihood of institutionalization increases.

"Pilot site" efforts in a district were difficult to sustain and spread because (1) they required relatively large investments of central office time for the benefit of a few; (2) they frequently raised divisive speculation about why some buildings volunteered or were selected and

others were not; and (3) implementation problems sometimes became rallying points from which to attack the feasibility of the innovation rather than opportunities to improve the pilot program or alter tne context to achieve an effective implementation.

Leadership and Institutionalization

It seems clear to BSC that the cluster of factors discussed by Miles (1983), administrative commitment, pressure, and support, is essential to institutionalization. In the Delaware district, where key administrators left the district the year after the field test, very little of the innovation was sustained. In the Pennsylvania district, where administrative pressure, support, and assistance, if not commitment, were weak, progress toward institutionalization was slow and tentative. And, although prospects in the New Jersey district are bri.. er, the superintendent himself suggested that the decline in level of implementation in the 1983-84 school year reflected his lowered support and pressure. This suggests that "institutionalization" is highly dependent on the continued support of district leaders. BSC questions whether institutionalization is ever routine in the sense that little energy is required to sustain the implementation.

District support for an innovation is probably never more tenuous than during turnover in leadership. While it is true that a district's chances of maintaining an innovation after loss of a key leader may be enhanced if the innovation has been built into district policy and procedures, it is also true that such policy and practice can and may well be changed by new leadership bent on making its own mark. Given the tendency districts have

to meander from innovation to innovation (Runkel, Wyant, Bell, & Runkel, 1980) and the tendency of new brooms to sweep clean, the chances of sustaining an implementation in spite of changes in key leadership seem slim.

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Appendix A

Data Sources on Program Implementation

Summary of Data Sources on Program Implementation, 1981-84
Pennsylvania School District

District	Level	Data Source	Date Administered	Interviewees	Period Covered
Pennsylvania	District	Installation Interview	Winter, 1981-82	Superintendent and 6 District Staff	1981-82
		Interview	Spring, 1982	7 District Staff	1981-82
		Interview	Summer, 1982	Superintendent	1981-82
		Interview	Spring, 1984	3 District Staff	1982-83 & 1983-84
	School	Installation Interview	Winter, 1981-82	5 Principals	1981-82
		Participatory Supervision Interview	Winter, 1981-82	5 Principals	1981-82
		Interview	Spring, 1982	5 Principals	1981-82
		Questionnaire	Spring, 1982	5 Principals	1981-82
		Interview	Summer, 1983	5 Principals	1982-83
		Interview	Spring, 1984	12 Principals	1983-84
		Interview	Spring, 1984	5 Principals	1982-83 & 1983-84
	Classroom	Interview	Spring, 1982	12 Teachers	1981-82
		Questionnaire	Spring, 1982	46 Teachers	1981-82
		Interview	Spring, 1984	34 Teachers	1982-83 & 1983-84

Summary of Data Sources on Program Implementation, 1981-84
New Jersey School District

District	Level	Data Source	Date Administered	Interviewees	Period Covered
New Jersey	District	Installation Interview	Fall, 1981	Superintendent and 10 District Staff	1981-82
		Interview	Spring, 1982	Superintendent	1981-82
		Interview	Spring, 1982	10 District Staff	1981-82
		Interview	Winter, 1983-84	Superintendent	1982-83
		Interview	Summer, 1984	Superintendent	1983-84
	School	Installation Interview	Fall, 1981	9 Principals	1981-82
		Participatory Supervision Interview	Winter, 1981-82	9 Principals	1981-82
		Interview	Spring, 1982	9 Principals	1981-82
		Questionnaire	Spring, 1982	9 Principals	1981-82
		Interview	Fall, 1983	8 Principals	1982-83
		Interview	Spring, 1984	8 Principals	1983-84
	Classroom	Interview	Spring, 1982	20 Teachers	1981-82
		Questionnaire	Spring, 1982	116 Teachers	1981-82
		Interview	Winter, 1983-84	18 Teachers	1982-83 & 1983-84

Summary of Data Sources on Program Implementation, 1981-84
Delaware School District

District	Level	Data Source	Date Administered	Interviewees	Period Covered
Delaware	District	Installation Interview	Summer, 1981	Superintendent and 3 District Staff	1981-82
		Interview	Winter, 1981-82	1 District Staff	1981-82
		Interview	Spring, 1982	1 District Staff	1981-82
		Interview	Summer, 1982	Superintendent	1981-82
		Interview	Spring, 1984	Superintendent	1982-83 & 1983-84
		Interview	Spring, 1984	1 District Staff (former)	1982-83 & 1983-84
	School	Installation Interview	Summer, 1981	2 Principals	1981-82
		Participatory Supervision Interview	Fall, 1981 & Winter, 1981-82	2 Principals	1981-82
		Interview	Spring, 1982	2 Principals 1 Asst. Principal	1981-82
		Questionnaire	Spring, 1982	1 Principal	1981-82
		Interview	Spring, 1984	2 Principals (1 former)	1982-83 & 1983-84
	Classroom	Interview	Fall, 1981	4 Teachers	1981-82
		Interview	Spring, 1982	5 Teachers	1981-82
		Questionnaire	Spring, 1982	28 Teachers	1981-82
		Interview	Spring, 1984	6 Teachers	1982-83 & 1983-84

Appendix B

Summaries of Program Implementation

SUMMARIES OF PROGRAM IMPLEMENTATION

The following three tables summarize data on implementation of ADL in three consecutive school years (1981-84) in three school districts. The tables are organized by four of the five critical program elements discussed in chapter 5 (i.e., critical classroom variables; principal seminars; principal/teacher conferences; and district/principal conferences). Differentiated inservice is not included due to the lack of comparable data.

Each table presents data from four sources: the BSC, the district (e.g., superintendents, resource teachers, curriculum specialists), school (principals), and classroom (teachers) levels. Attempts were made to question educators at each level about the same topics, i.e., triangulate, in order to establish the reliability of the data. In general, the tables reveal a good deal of agreement between levels. Data sources include: BSC observations and contact reports; superintendent interviews; principal and teacher interviews and questionnaires; and principal/teacher conference forms.

Table B-1

Summary of Program Implementation, 1981-84
Pennsylvania School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84[c]			
	BSC	Dist. (N=?)[a]	Schl. (N=5)	Clsrm. (N=46)	BSC	Dist. (N=1)[b]	Schl. (N=5)	Clsrm. (N=10)	BSC	Dist. (N=3)	Schl. (N=17)	Clsrm. (N=34)
Collection of Classroom Data												
• Variables attended to (T, C, PL, AP)[d]	All[e]	All	All	All	T(1 Sch.) C(2 Schs.)	NA[f]	T(1 Sch.) C(2 Schs.)	T(1 Sch). C(2 Schs.)	All	All	All	All
• For which subject areas	M R/LA	M R/LA	M R/LA	M R/LA	M R/LA	-	M R/LA	M R/LA	M R/LA	M R/LA	M R/LA	M R/LA
• Number of classrooms involved	(5 Sch.) All	(5 Sch.) All	(5 Sch.) All	(5 Sch.) All	(2 Sch.) All	-	(2 Sch.) All	(2 Sch.) All	All	All	All	All
• Participating Supervisors	Prin.	Prin.	Prin.	Prin.	Prin.	-	Prin.	Prin.	Prin.	Prin.	Prin.	Prin.
• Mean number of observations	3	3	3	7[g]	2 (1 Sch.)	-	2 (1 Sch.)	4 (1 Sch.)	4	4	4	5[g]
• Range of observations	3	3	3	2-15[g]	2	-	2-8	2-8	4	3-7	3-7	2-7

[a] The superintendent, resource teachers, and curriculum specialists.
[b] Curriculum specialist.
[c] 1983-84 principal and teacher interviews were from 17 elementary schools. District data from Director of Instruction and two curriculum specialists.
[d] T = Time; C = Content; PL = Prior Learning; AP = Academic Performance.
[e] Concentrated mostly on Time; content (primarily coverage in math) implemented later in year; minimal attention to academic performance.
[f] NA = Not asked of interviewee.
[g] Interviewees may have confused ADL observations with non-ADL observations.

Note: Data sources include BSC observations and contact reports; superintendent interviews; principal and teacher interviews and questionnaires; principal/teacher conference forms.

Table B-1 (cont.)

Pennsylvania School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84			
	BSC	Dist. (N=7)	Schl. (N=5)	Clsrm. (N=46)	BSC	Dist. (N=1)	Schl. (N=5)	Clsrm. (N=10)	BSC	Dist. (N=3)	Schl. (N=17)	Clsrm. (N=34)
Principal Leadership Seminars												
• Seminar leader(s)	BSC	BSC	BSC	NA	BSC	BSC	BSC	NA	BSC; Dir. of Inst.	BSC; Dir. of Inst.	BSC; Dir. of Inst.	NA
• Seminar frequency	2/mo.	2/mo.	2/mo.	NA	1/mo.	1/mo.	1/mo.	NA	1/mo.	1/mo.	1/mo.	NA
Principal/Teacher Conferences												
• Number of participating teachers	(5 Sch.) All	(5 Sch.) All	(5 Sch.) All	(5 Sch.) All	(2 Sch.) All	NA	(2 Sch.) All	(2 Sch.) All	All	All	All	All
• Participating Supervisors	5	5	5	5	2	NA	2	2	17	17	17	17
• Mean number of confs. per teacher	3	3	3	3	2	-	2	2	4	3	3	3
• Range in number of conferences	3	3	1-3	1-8	1-2	-	1-4	1-4	4	3	2-6	2-6
• Variables discussed	All	All	All	All	T(1 Sch.) C(2 Sch.)	-	T(1 Sch.) C(2 Sch.)	T(1 Sch.) C(2 Sch.)	All	All	All	All

Table B-1 (cont.)

Pennsylvania School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84			
	BSC	Dist. (N=7)	Schl. (N=5)	Clsrm. (N=46)	BSC	Dist. (N=1)	Schl. (N=5)	Clsrm. (N=10)	BSC	Dist. (N=3)	Schl. (N=17)	Clsrm. (N=34)
District/Principal Conferences												
• Number of participating principals	5	5	5	NA	None	NA	None	NA	17	17	17	NA
• Participating central office staff	1	1	1	NA	-	-	-	-	2	2	2	NA
• Mean number of confs. per prinipal	1	1	1	NA	-	-	-	-	1	1	1	NA
• Range in number of conferences	-	-	-	NA	-	-	-	-	-	-	-	NA
• Variables discussed	All	All	All	NA	-	-	-	-	All	All	All	NA

Table B-2

Summary of Program Implementation, 1981-84
New Jersey School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84			
	BSC	Dist. (N=1)[a]	Schl. (N=9)	Clsrm. (N=116)	BSC	Dist. (N=1)	Schl. (N=8)	Clsrm. (N=18)	BSC	Dist. (N=1)	Schl. (N=8)	Clsrm. (N=18)
Collection of Classroom Data												
• Variables attended to (T, C, PL, AP)[b]	All	All	All	NA[c]	T,C,PL	All	All	All	T,C,PL	All	All	All
• For which subject areas	R/LA M	R,M	R/LA M	NA	R/LA M	R,M Sci.	NA	R/LA M	R/LA M	R,M	R/LA M	R/LA M
• Number of classrooms involved	All (g.k-8)	All (g.1-8)	All (g.1-8)	NA	All (g.k-8)	All (g.1-8)	All (g.1-8)	NA	All (g.1-8)	All (g.1-8)	All (g.1-8)	NA
• Participating Supervisors	NA	Prins; DOI	Prins; some DOI	NA	NA	Prins; DOI	NA	Prins; Asst. Prins; DOI	NA	Prins; DOI	NA	Prins; Asst. Prins; DOI
• Mean number of rounds of observations	4	6[d]	3	4	3	3	3	6[d]	3	6[d]	3	3
• Range of observations	NA	6[d]	2-3	3-4	NA	NA	3-4	4-16[d]	NA	6[d]	3-4	2-8[d]

[a] The superintendent.
[b] T = Time; C = Content; PL = Prior Learning; AP = Academic Performance.
[c] NA = Not asked of interviewee.
[d] Interviewees may have confused individual observations with rounds of observations.

Note: Data sources include BSC observations; superintendent interviews; principal and teacher interviews and questionnaires; principal/teacher conference forms.

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Table B-2 (cont.)

New Jersey School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84			
	BSC	Dist. (N=1)	Schl. (N=9)	Clsrm. (N=116)	BSC	Dist. (N=1)	Schl. (N=8)	Clsrm. (N=18)	BSC	Dist. (N=1)	Schl. (N=8)	Clsrm. (N=18)
Principal Leadership Seminars												
• Seminar leader(s)	BSC; Supt; Asst. Supt.	Supt; Asst. Supt; Asst. to Supt; BSC	NA	NA	Supt; Asst. Supt;	Supt; Asst. Supt; Asst. to Supt; BSC	NA	NA	Supt; Asst. Supt; BSC	Supt; Asst. Supt; Asst. to Supt; BSC	NA	NA
• Seminar frequency	1/mo	NA	1/mo	NA	1/mo	1/mo	1/mo	NA	1/mo	1/mo	1/mo	NA
Principal/Teacher Conferences												
• Number of participating teachers	All (g.K-8)	All (g.K-8)	All (g.1-8)	NA	All (g.1-8)	All (g.1-8)	All (g.1-8)	NA	All (g.1-8)	All (g.1-8)	All (g.1-8)	NA
• Participating supervisors	Prins; DOI*	Prins.	Prins; Asst. Prins; DOI	NA	Prins; DOI	Prins.	Prins.	Prins; Asst. Prins; DOI	Prins; DOI	Prins.	NA	Prins; Asst. Prins; DOI
• Mean number of confs. per teacher	3	3	3	4	3	3	3	4	3	3	3	2
• Range in number of conferences	2-4	3	2-3	0-10	2-4	NA	3-6	2-8	1-3	3	3	1-3
• Variables discussed	T,C	All	All	All	T,C	All	All	All	T	All	All	All

*DOI = Department of Instruction Staff (curriculum specialists).

Table B-2 (cont.)

New Jersey School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84			
	BSC	Dist. (N=1)	Schl. (N=9)	Clsrm. (N=116)	BSC	Dist. (N=1)	Schl. (N=8)	Clsrm. (N=18)	BSC	Dist. (N=1)	Schl. (N=8)	Clsrm. (N=18)
District/Principal Conferences												
• Number of participating principals	9	9	9	NA	8	8	8	NA	8	8	8	NA
• Participating central office staff	Supt.	Supt.	Supt.	NA	Supt.	Supt.	Supt.	NA	Supt.	Supt.	Supt.	NA
• Mean number of confs. per principal	2	2	NA	NA	2	2	2	NA	2	2	[f]	NA
• Range in number of conferences	2-3	2	NA	NA	2	2-4	1-4	NA	1-3	2	1-3	NA
• Variables Discussed	T,C,PL	All	All	NA	T,C,AP	All	All	NA	T,C	All	All	NA

[f] As of date of interviews one more conference was planned.

Table B-3

Summary of Program Implementation, 1981-84
Delaware School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84[c]			
	BSC	Dist. (N=2)[a]	Schl. (N=3)[b]	Clsrm. (N=5)	BSC	Dist. (N=2)	Schl. (N=1)	Clsrm. (N=3)	BSC	Dist. (N=2)	Schl. (N=1)	Clsrm. (N=3)
Collection of Classroom Data												
• Variables attended to (T,C,PL,AP)[d]	All	All	All	T,PL, C	T,PL	T,PL	T,PL	T,PL	PL	none	PL	PL
• For which subject areas	R/LA M	NA[e]	NA	NA	R/LA M	NA	NA	NA	R/LA M	-	NA	NA
• Number of classrooms involved	All	All	NA	NA	1 Sch.	1 Sch.	NA	NA	NA	-	NA	NA
• Participating Supervisors	2 Prins. 1 Asst. Prin.	2 Prins. 1 Asst. Prin.	1 Prin. 1 Asst. Prin.	1 Prin. 1 Asst. Prin.	1 Prin.	1 Prin.	1 Prin.	1 Prin.	Dir. of Spec. Pgms.	-	1 Prin.	none
• Mean number of rounds of observations	2	NA	NA	NA	2	NA	1	1	none	none	none	none
• Range of observations	1-4	NA	NA	NA	1-2	NA	0-2	0-2	-	-	-	-

[a] The superintendent and the director of special programs.
[b] Two principals and one assistant principal.
[c] 1983-84 principal and teacher interviews were from one elementary school; the principal of the other elementary school left the district 6/83.
[d] T = Time; C = Content; PL = Prior Learning; AP = Academic Performance.
[e] NA = Not asked of interviewee.

Note: Data sources include BSC observations and Contact Reports; superintendent interviews; principal and teacher interviews and questionnaires; principal/teacher conference forms.

Table B-3 (cont.)

Delaware School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84			
	BSC	Dist. (N=2)	Schl. (N=3)	Clsrm. (N=5)	BSC	Dist. (N=2)	Schl. (N=1)	Clsrm. (N=3)	BSC	Dist. (N=2)	Schl. (N=1)	Clsrm. (N=3)
Principal Leadership Seminars												
• Seminar leader(s)	BSC; Supt; Dist. Staff; Con-sul-tants	BSC; Supt.; Dist. Staff; Con-sul-tants	BSC; Supt.; Dist. Staff; Con-sul-tants	NA	Supt; Dist. Staff; Con-sul-tants	Supt; Dist. Staff; Con-sul-tants	NA	NA	-	-	-	NA
• Seminar frequency	4/yr	NA	NA	NA	1-2/mo	1-2/mo	NA	NA	none	none	none	NA
Principal/Teacher Conferences												
• Number of partici-pating teachers	All	All	NA	NA	1 sch.[f]	1 sch.[f]	none	NA	none	none	none	NA
• Participating supervisors	1 Prin. 1 Asst. Prin.	NA	1 Prin. 1 Asst. Prin.	1 Prin. 1 Asst. Prin.	1 Prin.	1 Prin.	none	none	none	none	none	none
• Mean number of confs. per teacher	2	NA	NA	3 (Tchrs. paired)	1	NA	-	-	-	-	-	-
• Range in number of conferences	NA	NA	NA	NA	0-2	NA	-	-	-	-	-	-
• Variables discussed	All-1 Sch T - 1 Sch	NA	NA	T	T	NA	-	-	-	-	-	-

[f]Conference using engagement rate form, not principal/teacher conference form.

Table B-3 (cont.)

Delaware School District

Program Element	Year and Level of Response											
	1981-82				1982-83				1983-84			
	BSC	Dist. (N=2)	Schl. (N=3)	Clsrm. (N=5)	BSC	Dist. (N=2)	Schl. (N=1)	Clsrm. (N=3)	BSC	Dist. (N=2)	Schl. (N=1)	Clsrm. (N=3)
District/Principal Conferences												
• Number of participating principals	1 Prin. 1 Asst. Prin.	2	1	NA	none	none	none	NA	none	none	none	NA
• Participating central office staff	Dir. of Sp. Pgms.	Dir. of Sp. Pgms.	Dir. of Sp. Pgms.	NA	-	-	NA	-	-	-	-	NA
• Mean number of confs. per principal	1.5	NA	NA	NA	-	-	-	NA	-	-	-	NA
• Range in number of conferences	1-2	NA	NA	NA	-	-	-	NA	-	-	-	NA
• Variables Discussed	All	All	All	NA	-	-	-	NA	-	-	-	NA

Appendix C

Significance of Achievement Gains

SIGNIFICANCE OF ACHIEVEMENT GAINS

According to the Norm-referenced Title 1 Evaluation Model (model A), the treatment group is assumed to increase in achievement at the same rate as the norm group. Thus, an NCE change of zero indicates the group progressed at the same rate as a representative sample of students at that grade level. NCE changes greater than and less than zero can be attributed to the intervention.

How much change is necessary to be deemed educationally significant? This issue is fraught with ambiguity--no easy rule of thumb has been agreed upon. Some researchers suggest that a change of one-third of a standard deviation is significant. In this case, seven NCEs would be appropriate (the standard deviation for NCEs is 21.06). Other researchers indicate that any change (i.e., one NCE) is good (Tallmadge & Wood, 1976; Tallmadge, 1976). BSC chose here simply to present the data and point out apparent trends, rather than base interpretations on an unconfirmed standard.